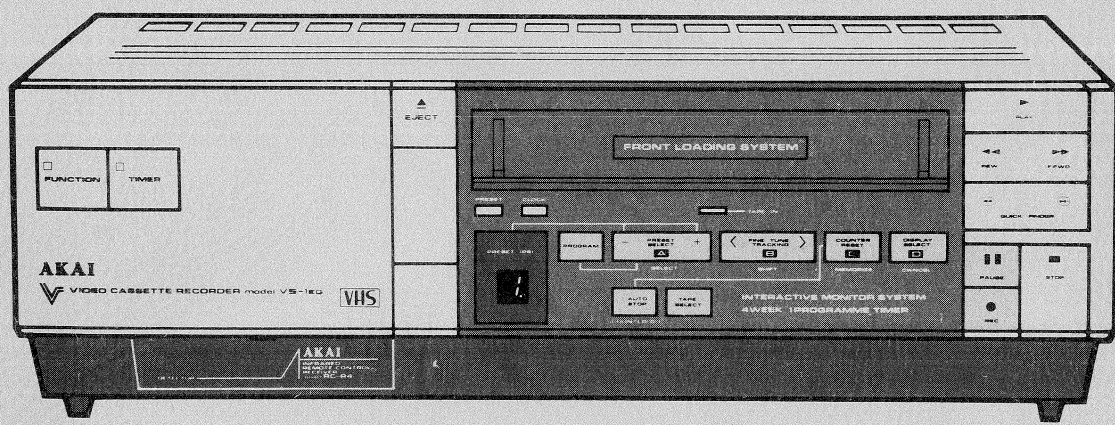
AKAI SERVICE MANUAL

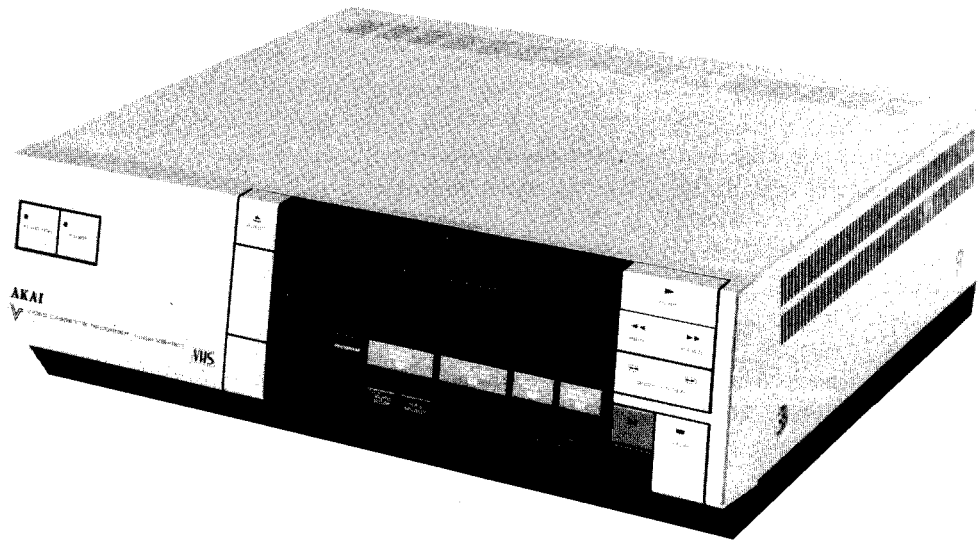


VIDEO CASSETTE RECORDER

MODEL VS-1 EG/EG-G/EO/EK

ABBREVIATIONS FOR SERVICE MANUAL
MODEL VS-1EG, EG-G, EK, EO

AC	Alternating Current
ACC	Auto Color Control
A/C	Audio and Control
ADJ	ADJust (ment)
AFC	Auto Frequency Control
AFT	Auto Fine Tuning
AGC	Auto Gain Control
AH(P)	Audio Head (Play Back)
AH(R)	Audio Head (Record)
AL	ALl
ALC	Auto Level Control
ANT	ANTenna
APC	Automatic Phase Control
ASSY	ASSemblY
BAL	BALance
B/C	Buzz and Charactor
B DOWN	Break DOWN
BGP	Burst Gate Pulse
BLK	BLacK or BLock
BM	Balanced Modulator
BPF	Band Pass Filter
BS	Band Select
BU	Back Up
B/W	Black and White
CCIR	Comité Consultatif International des Radio Communications
CH (Ch.)	CHannel (Channel)
CLK	CLocK
CLP	CLiP
CM	Capstan Motor
CN	CoNnector
COMP	COMParator
Comp	Comparison
C or R	Cue or Review
CSW	Cassette SWitch
CTL	ConTroL
CUE	CUE
CW	Carrier Wave
DAC	Digital to Analog Converter
DC	Direct Current
DEMOD	DEMODulator
DET	DETect (DETector)
DL	Delay Line
DM	Drum Motor
DOC	Drop Out Compensator
EE	Electronic to Electronic
EF	Emitter Follower
EM	Eject Motor
EMPHA	EMPHAsis
ENV IN	ENVelope INput
ESW	Eject SWitch
EQ	EQualizer
FE	Full track Erase
FF	Flip-Flop
FG	Frequency Genelator
Fig.	Figure
FM	Frequency Modulation
Fo	resonance Frequency
FREQ	FREQuency
GND	GrouND
H	Horizontal
HP	Horizontal (sync) Pulse
HPF	High Pass Filter
HT	HeaTer
IC	Integrated Circuit
IDL	IDLe (Voltage)
INS	INSert
INV	INVerter
LED	Light Emitting Diode
LM	Loading Motor
LPF	Low Pass Filter
LSW	Loading SWitch
ME-SECAM	Middle East SECAM
MI-COM	MIcro COMputer
MM	Mono-stayble Multi
MRS (MRVS)	Motor ReverSe (Motor ReVerSe)
NON-LIN	NON-LINear
O MUTE	Output MUTE
OSC	OSCillator
PAL	Phase Alternation Line
PB	Play Back
P-COM	Phase-COMparator
PG	Pulse Generator
PL, PLG	PLunger (PLunGer)
PRE	PRE emphasis
PRG	PRoGram
P & S	Power supply & System control
PWR	PoWeR
Q	Quality factor
REC	RECord
REF	REFerence
REF-V	REFerence Vertical signal
REG	REGulator
REV(REVW)	REView (REVieW)
REW	REWind
RFB	Radio Frequency Booster
RM	Reel Motor
RM PWR	Reel Motor PoWeR
RSSW	Record Safety SWitch
RST (RES)	ReSeT (RESet)
S	Sensor, Shield
S CLK	Serial CLocK
S & A	Servo & Audio
SECAM	Séquentiel à Memoire
SEP (SEPA)	SEParator (SEPArator)
S & H	Sample and Hold
SPD	SPeeD
SRP	Supply Reel Pulse
SRV	SeRVo
SW	SWitch
SW'NG	SWitchiNG
SWP	SWitching Pulse
SYNC	SYNChronize
TPZ (TRAPE)	TraPeZoid (TRAPEzoid)
TRK	TRacKing
TRP	Take up Reel Pulse
T/U	Take Up
TV	TeleVision
UHF	Ultra High Frequency
UNR	UNRegulated
V	Vertical
VCO	Voltage Controlled Oscillator
VF	Voltage for Fine tuning
VHF	Very High Frequency
VHS	Video Home System
VID	VIDeo
VIDEO-J	VIDEO Judge
VIF	Video Intermediate Frequency
VJ	Video Judge
VM	Voltage for Memory
VOB	Video On Blank
VOW	Video On Word
VP	Vertical (sync) Pulse
VT	Voltage for Tuning
VV	Video to Video
W/D	White/Dark
WHT	WHiTe



VIDEO CASSETTE RECORDER

MODEL VS-1 EG/EG-G/EO/EK

THIS MANUAL IS APPLICABLE TO BOTH SILVER AND PEARL SHADOW PANEL MODELS.

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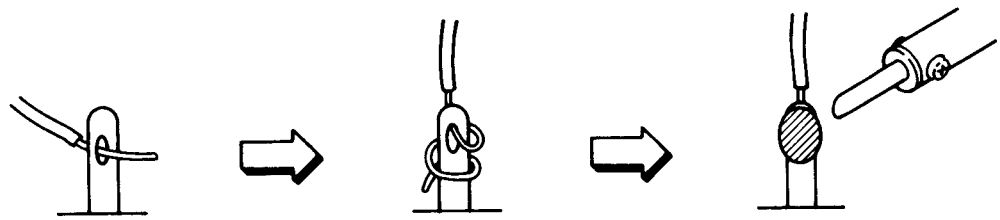
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks, line-in out jacks etc.).

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.

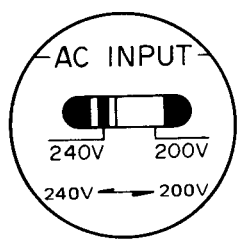


6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

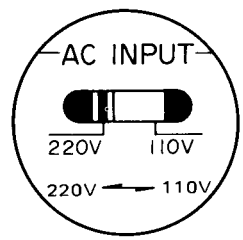
VOLTAGE CONVERSION

Power requirements for electrical equipment differ from area to area.
The operation voltage of VS-1 is preset to 220V (VS-1EG/EG-G/EO), 240V (VS-1EK).
Before connecting, check that the AC INPUT selector on the rear panel is set to the voltage for your area:
220V, 50 Hz for Europe except UK
240V, 50 Hz for UK and Australia
110V, 200V, 220V, 240V or 250V, 50 or 60 Hz for other countries. (If in doubt, consult a qualified electrician.)
If the AC INPUT is not set for your area:

1) Confirm that the POWER Switch on the rear panel is set to OFF.
2) Confirm that the POWER Cord is disconnected.
3) Move the AC INPUT selector with a screwdriver so that the marker is above the voltage for your area.



VS-1EK model



VS-1EG, EG-G, EO model

CYCLE CONVERSION

With DC MOTOR, CYCLE CONVERSION is not necessary.

SECTION 1

OPERATING MANUAL

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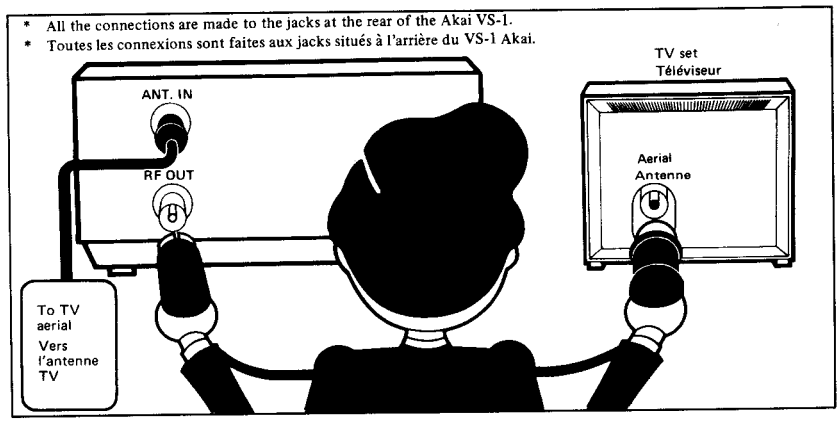
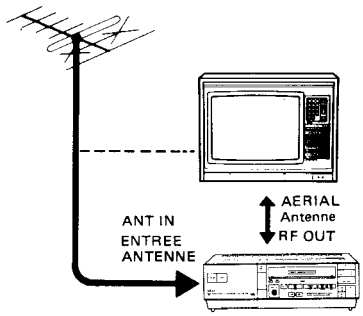
Let's make the right connections
Etablissement des connexions correctes

There is a tuner inside your Akai VS-1 for station selection. This tuner is just like the tuner inside your TV. For this reason, your TV antenna must be connected to the Akai VS-1.

Un tuner est incorporé à l'intérieur du VS-1 Akai pour la sélection des stations. Ce tuner est identique à celui à l'intérieur de votre téléviseur. Pour cette raison, votre antenne de télévision doit être connectée au VS-1 Akai.

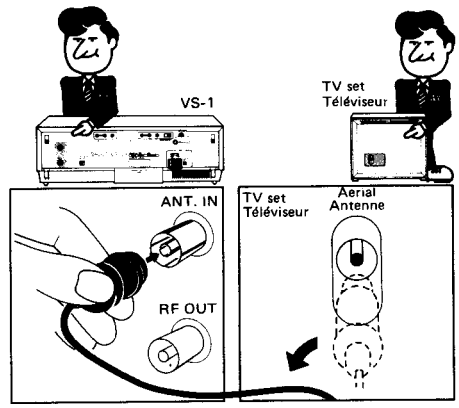
* All the connections are made to the jacks at the rear of the Akai VS-1.
* Toutes les connexions sont faites aux jacks situés à l'arrière du VS-1 Akai.





1

Unplug the TV antenna cable from your TV and plug it into the antenna input jack (ANT. IN) of the Akai VS-1.

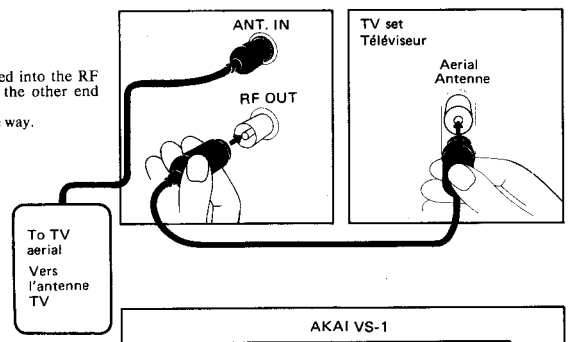


1

Débranchez le câble d'antenne de votre téléviseur et branchez-le au jack d'entrée d'antenne (ANT. IN) du VS-1 Akai.

2

Plug one end of the aerial cable supplied into the RF OUT jack of the Akai VS-1 and plug the other end into the aerial jack of your TV.
* The cable can only be connected one way.

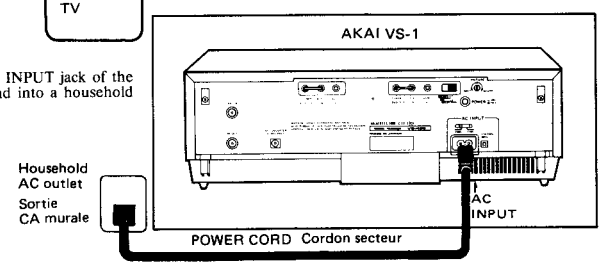


2

Branchez une extrémité du câble d'antenne fourni sur le jack sortie RF (RF OUT) du VS-1 Akai et branchez l'autre extrémité au jack d'antenne de votre téléviseur.
* Le câble ne peut être connecté que d'une seule façon.

3

Plug the power cord into the AC INPUT jack of the Akai VS-1 and plug the other end into a household AC outlet.

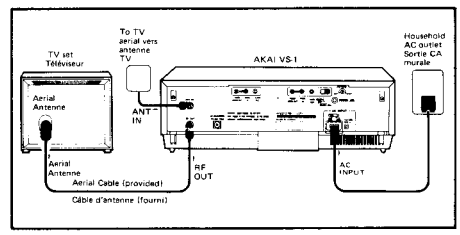


3

Branchez le cordon secteur sur le jack d'entrée CA (AC INPUT) du VS-1 Akai et branchez l'autre extrémité sur une sortie CA murale.

4

Check the connection one more time.

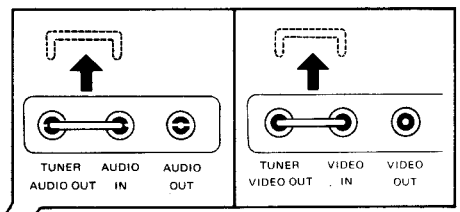


4

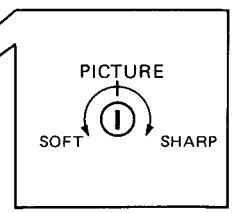
Vérifiez à nouveau les connexions.

Let's check the rear panel of the Akai VS-1 before operating
Vérifions le panneau arrière du VS-1 Akai avant utilisation

- **Using a video camera**
  * To record with a video camera, connect the video camera to the VIDEO IN and AUDIO IN jacks via a camera adaptor.
- **To connect to another video cassette recorder**
  * To make a copy of an original tape connect another video cassette recorder to jacks using special connection cables available on the market.



- **Utilisation d'une caméra vidéo**
  * Pour enregistrer avec une caméra vidéo, connectez la caméra vidéo aux jacks d'entrée vidéo (VIDEO IN) et audio (AUDIO IN) par un adaptateur de caméra.
- **Pour la connexion à un autre magnétoscope à cassettes.**
  * Pour faire une copie d'une bande originale, connectez un autre magnétoscope à ces jacks en utilisant des câbles de connexion spéciaux en vente dans le commerce.



- **To adjust the picture quality**

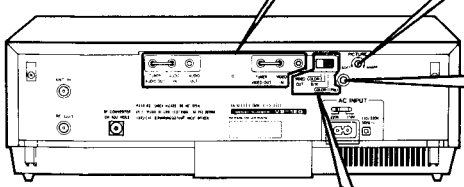
Use the PICTURE control on the rear panel to adjust the picture quality (Sharpness) to suit your taste.

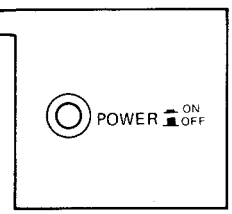
The control should normally be set to its center position.

- **Pour ajuster la qualité de l'image**

Utilisez la commande image (PICTURE) située sur le panneau arrière pour ajuster la qualité de l'image (contraste) selon vos goûts.

Cette commande doit normalement être réglée en position centrale de déclic.





POWER switch

In regular use, the POWER switch should be left ON (⏏). This is because power must be maintained to the antenna signal booster and the moisture prevention circuit inside the Akai VS-1. Leaving the POWER switch ON will have no effect on TV viewing. TV can be turned on and off independently.

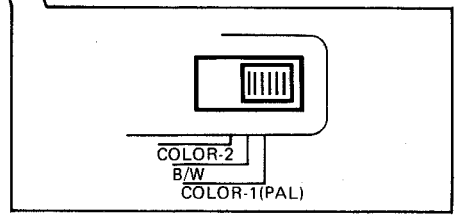
Commutateur d'alimentation (POWER)

Pour une utilisation normale, le commutateur d'alimentation (POWER) doit être laissé sur marche (ON ⏏). Ceci est dû au fait que l alimentation doit être maintenue à l'amplificateur du signal d'antenne et au circuit de prévention contre la condensation situés à l'intérieur du VS-1 Akai. Le fait de laisser le commutateur d'alimentation (POWER) sur marche (ON) n'aura aucun effet sur les images du téléviseur. Ce dernier peut être mis sous tension et hors circuit indépendam- ent.

Video mode selector

The video mode selector is used to select the type of signal to be recorded or played back. This selector should normally be set to COLOR-1 (PAL).

COLOR-2	Set to this position for Middle East SECAM (system B/G) color system recording or playback.
B/W	Set to this position for CCIR standard monochrome system recording or playback.
COLOR-1 (PAL)	Set to this position for PAL color system recording or play back.

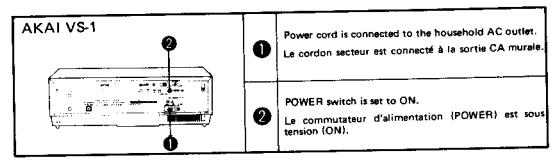


Sélecteur de mode vidéo

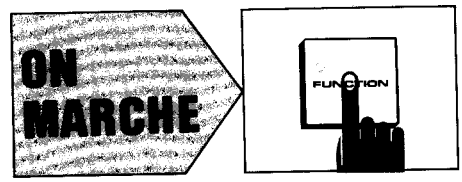
Le sélecteur de mode vidéo est utilisé pour choisir le type de signal à enregistrer ou à reproduire. Ce sélecteur doit normalement être réglé sur couleur 1 (COLOR 1 (PAL).

COLOR-2	Reglez-le sur cette position pour un enregistrement ou une reproduction avec le système couleur SECAM Moyen-Orient (système B/G).
B/W	Réglez-le sur cette position pour un enregistrement ou une reproduction avec le système monochrome standard CCIR.
COLOR-1 (PAL)	Réglez-le sur cette position pour un enregistrement ou une reproduction avec le système couleur PAL.

How to turn on and off the Akai VS-1
Comment mettre sous tension et hors circuit le VS-1 Akai

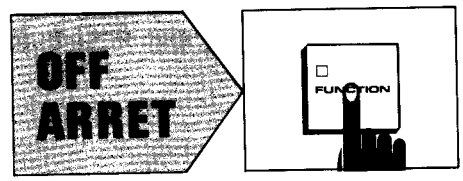


Depress the FUNCTION button to turn on the Akai VS-1.
* Its indicator will light.



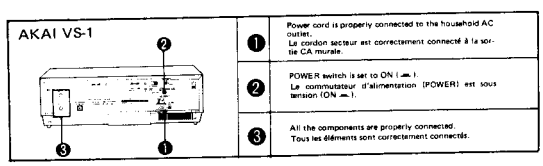
Appuyez sur la touche de fonction (FUNCTION) pour mettre sous tension le VS-1 Akai.
* Son indicateur s'allumera.

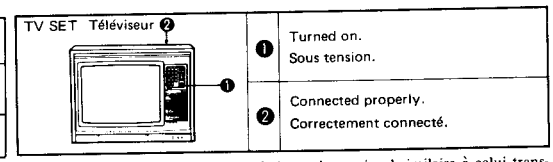
Depress the FUNCTION button again to turn off the Akai VS-1.
* Indicator will go off.
* The timer inside the Akai VS-1 will continue to function.



Appuyez à nouveau sur la touche de fonction (FUNCTION) pour mettre hors circuit le VS-1 Akai.
* Son indicateur s'éteindra.
* La minuterie à l'intérieur du VS-1 Akai continuera à fonctionner.

Let's set your TV to the video channel for the Akai VS-1
Réglage du téléviseur sur le canal vidéo pour le VS-1 Akai

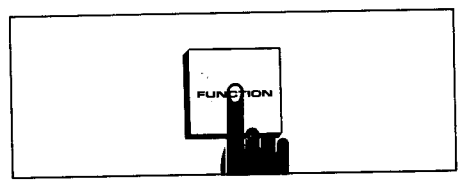




The Akai VS-1 sends out a signal similar to that transmitted by a TV station. By tuning your TV to receive this signal you can select programs from the Akai VS-1 as you would to select a program with the TV tuner.

1

Depress the FUNCTION button to send a signal to the TV.
This signal is to display time information.



Le VS-1 Akai envoie un signal similaire à celui transmis par une station de télévision. En accordant votre téléviseur pour qu'il reçoive ce signal, vous pouvez choisir les programmes du VS-1 Akai de la même manière que vous choisissez une émission avec le tuner TV.

1

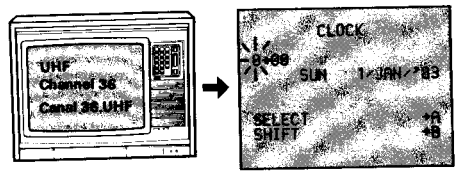
Appuyez sur la touche de fonction (FUNCTION) pour envoyer un signal vers le téléviseur.
Ce signal est destiné à afficher les informations de temps.

2

To receive this signal, adjust one of the channel selectors so that it is set to:
- UHF channel 36

If the display appears clearly on the TV screen, the TV is set to the video channel for the Akai VS-1.
* If the display is not clear, fine tune the display with the TV's tuning control.

NOTE:
This operation should be done with the TV's Automatic Frequency Control (AFC) or Automatic Fine Tuning (AFT) switch turned off. Turn it on after completing this operation.



2

Pour recevoir ce signal, réglez un des sélecteurs de canal afin qu'il soit réglé sur:
- Canal 36 UHF

Si l'affichage apparaît clairement sur l'écran de télévision, le téléviseur est réglé sur le canal vidéo pour le VS-1 Akai.
* Si l'affichage n'est pas clair, syntonisez finement l'affichage avec la commande de syntonisation du téléviseur.

REMARQUE:
Cette opération doit être effectuée le commutateur de réglage automatique de fréquence (AFC) ou d'accord fin automatique (AFT) du téléviseur étant hors circuit. Remettez-le sous tension après avoir terminé cette opération.

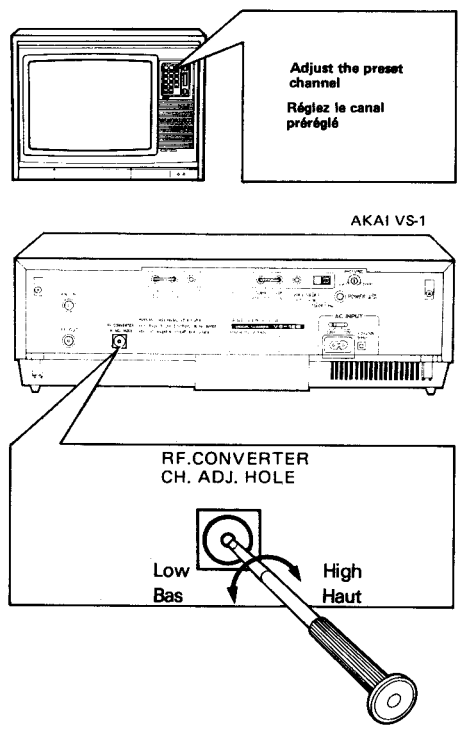
Whenever you want to watch programs from the Akai VS-1, turn your TV to the video channel you have just set

Should the display and a TV program overlap.
UHF channel 36 is being used for broadcasting by a TV station in your area. In that case, your TV must be set to an unused channel, between UHF 30 and 39.

If channel 36 is being used for broadcasts, adjust the TV channel selector a little at a time until the TV screen goes blank. (Set it towards high or low.)

Akai VS-1
Adjust the RF converter a little at a time with a screwdriver until the display appears clearly on the TV screen.
* If the channel selector was set towards high, set the RF converter towards high. Same thing applies if the channel selector was set towards low.

NOTE:
Video channel setting range is from UHF channel 30 to 39.



Lorsque vous voulez regarder des programmes du VS-1 Akai, réglez votre téléviseur sur le canal vidéo.

Au cas où l'affichage et une émission de télévision se chevauchent
Le canal 36 UHF est utilisé pour l'émission par une station de télévision dans votre région. Dans ce cas, réglez votre téléviseur sur un canal inutilisé, entre UHF 30 et 39.

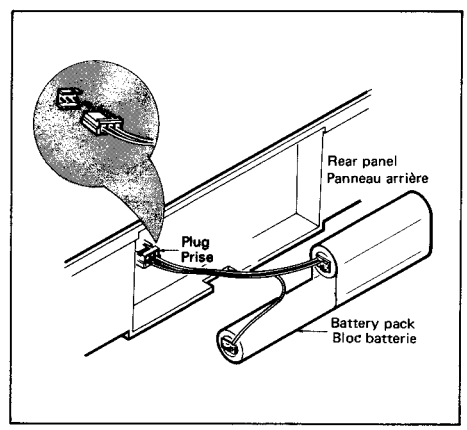
Si le canal 36 est déja utilisé pour des émissions, réglez petit à petit le sélecteur de canal jusqu'à ce que l'écran de télévision devienne vide. (Réglez-le vers haut ou bas.)

VS-1 Akai
Ajustez très lentement le convertisseur RF avec un tournevis jusqu'à ce que l'affichage apparaîsse clairement sur l'écran de télévision.
* Si le sélecteur de canal était réglé vers haut, réglez le convertisseur RF vers haut. Ceci s'applique également si le sélecteur de canal était réglé vers bas.

REMARQUE:
La plage de réglage du canal vidéo est de canal UHF 30 à 39.

How to load the rechargeable battery pack
Comment charger le bloc batterie rechargeable

The rechargeable battery pack maintains power to the memory of the Akai VS-1 in the event of a power failure.
1. Remove the battery compartment cover on the rear panel of the Akai VS-1.
2. Connect the plug of the rechargeable battery pack to the socket of the Akai VS-1.
3. Load the rechargeable battery pack into the battery compartment.
4. Replace the battery compartment cover. Refer to page 37.



Le bloc batterie rechargeable maintient l'aiimentation au VS-1 Akai au cas où une panne de courant se produit.
1. Enlevez le couvercle du compartiment de batterie situé sur le panneau arrière du VS-1 Akai.
2. Connectez la prise du bloc batterie rechargeable à la douille du VS-1.
3. Chargez le bloc batterie rechargeable dans le compartiment de batterie.
4. Replacez le couvercle du compartiment de batterie.
* Voir page 37.

Let's set the timer to the actual time
Réglage de la minuterie à l'heure réelle

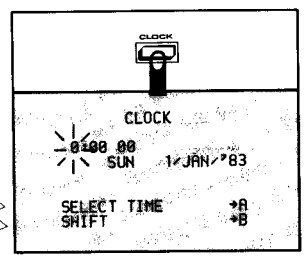
There is a 24 hour digital timer inside the Akai VS-1. To set this timer to the actual time, please follow this procedure, using as an example: 12:30 MON 5/SEP/'83.

Il y a une minuterie numérique par 24 heures à l'intérieur du VS-1 Akai. Pour régler cette minuterie à l'heure réelle, effectuez les opérations suivantes, par exemple: 12:30 lundi 5 Septembre 1983 (MON/ 5/SEP/'83).

1

Depress the CLOCK button to display the information for setting the timer to the actual time on your TV screen.
* Skip this step if the information is already displayed on the TV screen.

Appuyez sur la touche horloge (CLOCK) pour afficher les informations pour le réglage de la minuterie à l'heure réelle sur votre écran de télévision.
* Sautez cette étape si les informations sont déjà affichées sur l'écran de télévision.



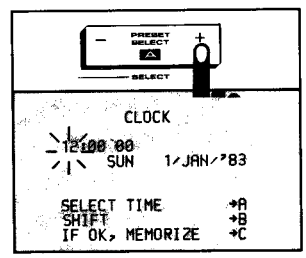
2 HOURS HEURES

To follow the instruction "SELECT TIME → A", depress the -⊡+ button to select the correct hours.

0, 1, 2, ... up to 23

Suivant l'instruction "SELECT TIME → A", appuyez sur la touche -⊡+ pour sélectionner les heures correctes.

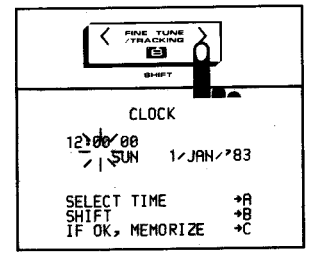
0, 1, 2, ... jusqu'à 23



3

To follow the instruction "SHIFT → B", depress the ⊡› button to shift to the next item to be set: minutes.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⊡› pour passer à l'élément suivant à régler: les minutes.



On the -⊡+ and ‹⊡› buttons / Sur les touches -⊡+ et ‹⊡›

-⊡+ button:
The -⊡+ button is used to select the indication for the flashing item closen by the ‹⊡› button.
⊕ side: Depress this side when you want to increase the indication.
⊖ side: Depress this side when you want to decrease the indication.
Holding down either side will change the indication continuously.

‹⊡› button:
The ‹⊡› button is used to choose the item you want to set. The chosen item will flash on and off.
> side: Depress this side when you want to set an item which is after the item that is now flashing.
< side: Depress this side when you want to set an item which is before the item that is now flashing.

Touche -⊡+ :
La touche -⊡+ est utilisée pour sélectionner l'indication pour l'élément clignotant choisi par la touche ‹⊡›.
Côté ⊕: Appuyez sur ce côté lorsque vous voulez augmenter l'indication.
Côté ⊖: Appuyez sur ce côté lorsque vous voulez diminuer l'indication.
Le fait de maintenir enclenché l'un des côtés fera changer continuellement l'indication.

Touche ‹⊡› :
La touche ‹⊡› est utilisée pour choisir l'élément que vous voulez régler. L'élément choisi clignotera.
Côté >: Appuyez sur ce côté lorsque vous voulez régler un élément qui est après l'élément qui est en train de clignoter.
Côté <: Appuyez sur ce côté lorsque vous voulez régler un élément qui est avant l'élément qui est en train de clignoter.

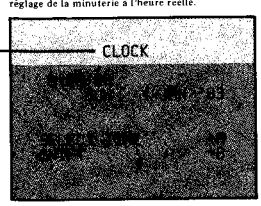
14

The full display is maintained for approximately 3 seconds. To recall the time see page 11.

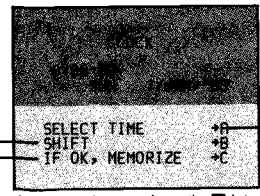
L'affichage entier est maintenu pendant approximativement 3 secondes. Pour lappeler l'heure, reprotez-vous page 11.

- On the clock set display
- Sur l'affichage de réglage horloge

This tells you that this display is for setting the timer to the actual time.
Ceci vous indique que cet affichage est pour le réglage de la minuterie à l'heure reelle.



This is instructing you to depress the ‹⊡› button to choose the item to be set. The chosen item will flash on and off.
Ceci vous dit d'appuyer sur la touche ‹⊡› pour choisir l'élément à régler. L'élément choisi clignotera.

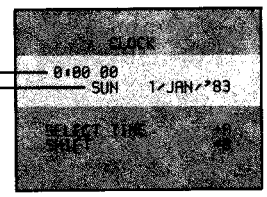


This is instructing you to depress the ⊡ button when you are satisfied with the indications you have set.
Ceci vous dit d'appuyer sur la touche ⊡ lorsque vous êtes satisfait des indications que vous avez réglées.

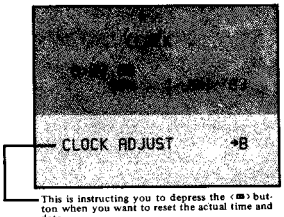
This is instructing you to depress the -⊡+ button to select the indication for the flashing item.
"SELECT TIME" will be displayed when you are to select the correct time.
"SELECT DAY" will be displayed when you are to select the correct day of the week.
"SELECT DATE" will be displayed when you are to select the correct day of the month.
"SELECT MONTH" will be displayed when you are to select the correct month.
"SELECT YEAR" will be displayed when you are to select the correct year.

Ceci vous dit d'appuyer sur la touche -⊡+ pour sélectionner l'indication de l'élément clignotant.
"SELECT TIME" (sélectionnez l'heure) sera affiché lorsque vous devez sélectionner l'heure correcte.
"SELECT DAY"(sélectionnez le jour) sera affiché lorsque vous devez sélectionner le jour correct de la semaine.
"SELECT DATE" (sélectionnez la date) sera affiché lorsque vous devez sélectionner le jour correct du mois.
"SELECT MONTH" (sélectionnez le mois) sera affiché lorsque vous devez sélectionner le mois correct.
"SELECT YEAR" (sélectionnez l'année) sera affiché lorsque vous devez sélectionner l'année correcte.

This tells you the time in 24 hour notation.
Ceci vous indique que l'indication de l'heure est par 24 heures.



The left indication tells you the day of the week and the right indications tell you the date of the date/month/year.
L'indication de gauche vous donne le jour de la semaine et les indications de droite vous donnent le ja date/le mois/l'année.

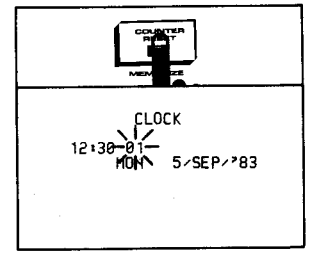


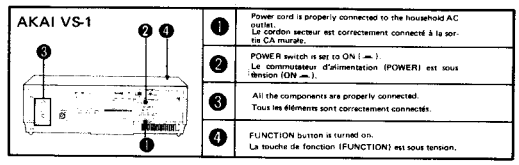
This is instructing you to depress the ‹⊡› button when you want to reset the actual time and date.
Ceci vous dit d'appuyer sur la touche ‹⊡› lorsque vous voulez réinitialiser l'heure réelle et la date.

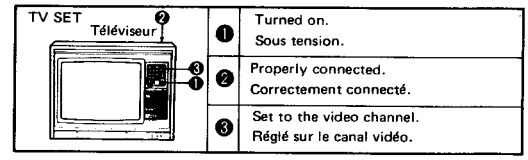
13 MEMORIZE MEMORISATION

You have now correctly set the timer to the actual time.
To follow the instruction "IF OK, MEMORIZE → C", depress the ⊡ button to memorize the data.
* The timer will start keeping time.

Vous avez maintenant réglé correctement la minuterie à l'heure réelle.
Suivant l'instruction "IF OK, MEMORIZE → C", appuyez sur la touche ⊡ pour mémoriser les données.
* La minuterie commencera à fonctionner.







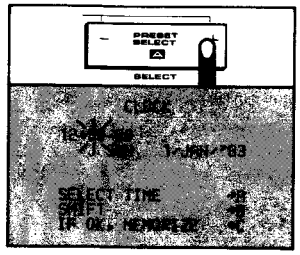
4 MINUTES MINUTES

To follow the instruction "SELECT TIME → A", depress the -▣+ button to select the correct minutes.

00, 01, 02, ... 00 to 59

Suivant l'instruction "SELECT TIME → A", appuyez sur la touche -▣+ pour sélectionner les minutes correctes.

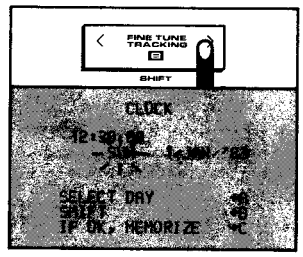
00, 01, 02, ... jusqu'à 59



5

To follow the instruction "SHIFT → B", depress the ▣› button to shift to the next item to be set: day of the week.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ▣› pour passer à l'élément suivant à régler: le jour de la semaine.



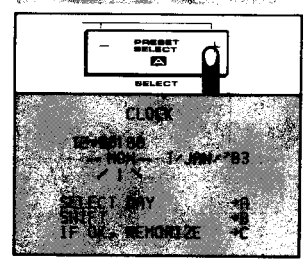
6 DAY OF WEEK JOUR DE LA SEMAINE

To follow the instruction "SELECT DAY → A", depress the -▣+ button to select the correct day of the week.

SUN, MON, TUE, WED, THU, FRI, or SAT

Suivant l'instruction "SELECT DAY → A", appuyez sur la touche -▣+ pour sélectionner le jour correct de la semaine.

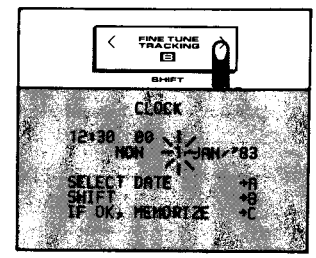
DIM, LUN, MAR, MER, JEU, VEN, OU SAM

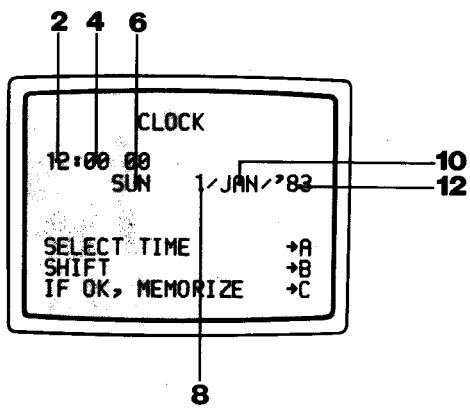


7

To follow the instruction "SHIFT → B", depress the ▣› button to shift to the next item to be set: day of the month.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ▣› pour passer à l'élément suivant à régler: le jour du mois.





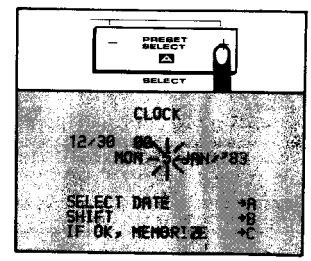
8 DATE OF MONTH JOUR DU MOIS

To follow the instruction "SELECT DATE → A", depress the -▣+ button to select the correct day.

1, 2, 3, ... up to 31

Suivant l'instruction "SELECT DATE → A", appuyez sur la touche -▣+ pour sélectionner le jour correct.

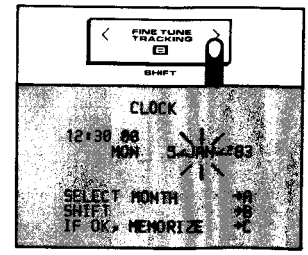
1, 2, 3, ... jusqu'à 31



9

To follow the instruction "SHIFT → B", depress the ▣› button to shift to the next item to be set: month.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ▣› pour passer à l'élément suivant à régler: le mois.



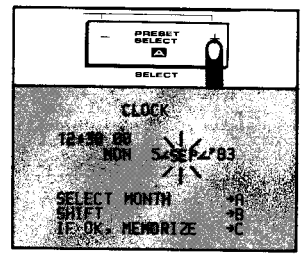
10 MONTH MOIS

To follow the instruction "SELECT MONTH → A", depress the -▣+ button to select the correct month.

JAN, FEB, MAR, . . . up to DEC.

Suivant l'instruction "SELECT MONTH → A", appuyez sur la touche -▣+ pour sélectionner le mois correct.

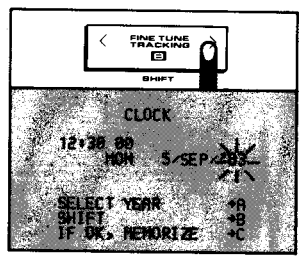
JAN, FEV, MAR, . . . jusqu'à DEC.



11

To follow the instruction "SHIFT → B", depress the ▣› button to shift to the next item to be set: year.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ▣› pour passer à l'élément suivant à régler: l'année.



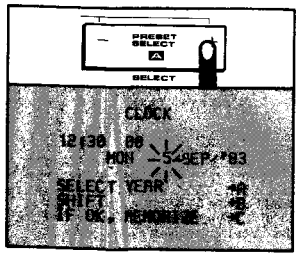
12 YEAR ANNEE

To follow the instruction "SELECT YEAR → A", depress the -▣+ button to select the correct year.

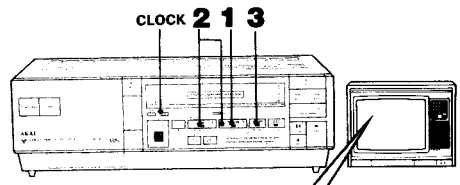
83, 84, 85, ... up to 98

Suivant l'instruction "SELECT YEAR → A", appuyez sur la touche -▣+ pour sélectionner l'année correcte.

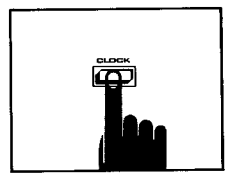
83, 84, 85, ... jusqu'à 98

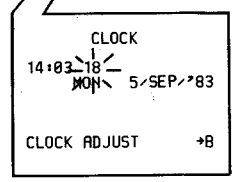


If you want to confirm the actual time and date

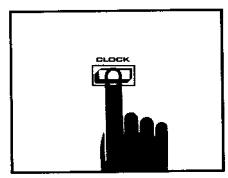


Depress the CLOCK button.
The information on the right will be displayed on your TV screen.





To remove the information from your TV screen, depress the CLOCK button again.



Pour vérifier l'heure réelle et la date

Appuyez sur la touche horloge (CLOCK).
Les informations à gauche seront affichées sur votre écran de télévision.

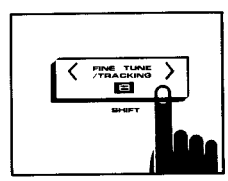
Appuyez à nouveau sur la touche horloge (CLOCK) pour annuler les informations affichées sur l'écran de télévision.

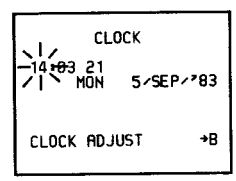
If you want to reset the actual time and date

As an example, we will change the date from 5 SEP to 12 SEP.

1

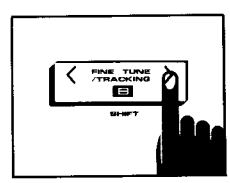
- Depress the CLOCK button to display the information for resetting the timer to the actual time.
- To follow the instruction "CLOCK ADJUST → B", depress the ‹ ▭ › button to display the information for setting the timer to the actual time.

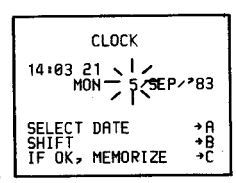


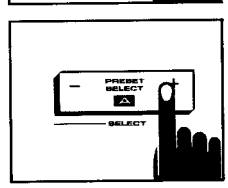


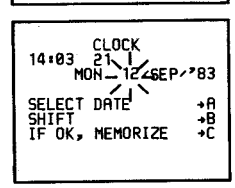
2

To follow the instruction "SHIFT → B", depress the ‹ ▭ › button again and again until the item you want to reset flashes on and off. Then to follow the instruction "SELECT TIME/DAY/DATE/MONTH/YEAR → A", depress the -▭+ button to reset the item.
Reset other items in the same manner. After you have reset all the items, go to the next step.



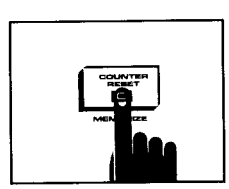


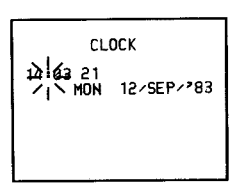




3

Depress the ▭ button to memorize the new data.





NOTE:
During the procedure for setting the timer to the actual time (previous page), any item can be reset by using the ‹ ▭ › and -▭+ buttons in the same manner.

Pour réinitialiser l'heure réelle et la date

Par exemple, pour changer la date du 5 Septembre au 12 Septembre.

1

- Appuyez sur la touche horloge (CLOCK) pour afficher les informations pour la réinitialisation de la minuterie à l'heure réelle.
- Suivant l'instruction "CLOCK ADJUST → B", appuyez sur la touche ‹ ▭ › pour afficher les informations pour le réglage de la minuterie à l'heure réelle.

2

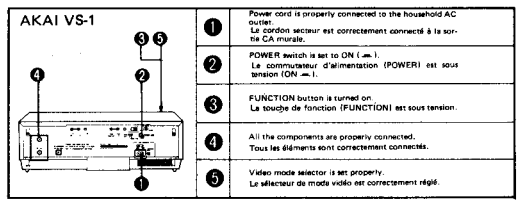
Suivant l'instruction "SHIFT → B", appuyez sur la touche ‹ ▭ › de façon répétée jusqu'à ce que l'élément que vous voulez régler clignote. Puis, suivant l'instruction "SELECT TIME/DAY/DATE/MONTH/YEAR → A", appuyez sur la touche -▭+ pour réinitialiser l'élément.
Réinitialisez les autres éléments de la même manière. Après avoir réinitialisé tous les éléments, passez à l'étape suivante.

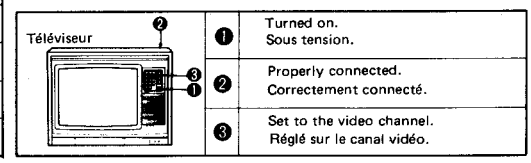
3

Appuyez sur la touche ▭ pour mémoriser les nouvelles données.

REMARQUE:
Pendant le procédé de réglage de la minuterie à l'heure réelle (page précédente), n'importe quel élément peut être réinitialisé en utilisant les touches ‹ ▭ › et -▭+ de la même manière.

Let's preset the Akai VS-1 with TV stations for recording TV programs
Préréglage du VS-1 Akai avec des stations de télévision pour l'entregistrement d'émissions





The Akai VS-1 must be tuned to all the locally available TV stations. We call this procedure "presetting".
VS-1EG: Up to 8 TV station can be preset.
VS-1EO: Up to 12 TV stations can be preset.
There is an automatic station search system inside the Akai VS-1 which searches for and tunes in TV stations. We call this searching for and tuning in TV stations "station search".

Le VS-1 Akai doit être syntonisé pour toutes les stations de télévision disponibles localement. Nous appelons cette opération "préréglage".
VS-1EG: Jusqu'à 8 stations de té;évision peuvent être préréglées.
VS-1EO: Jusqu'à 12 stations de télévision peuvent être préréglées.
Il y a un système automatique de recherche de station à l'intérieur du VS-1 Akai qui recherche et syntonise les stations de télévision. Nous appelons cette recherche et syntonisation des stations de télévision "recherche de stations".

■ On the preset station displays
■ Sur les affichages de station préréglée

This tells you that this display is for presetting the Akai VS-1 with TV stations.

Ceci vous dit que cet affichage est pour le préréglage du VS-1 Akai avec des stations de télévision.

"PS" stands for "preset station". The numeral beside the "PS" is the preset station number. When "EMPTY" is displayed as well, it means that the PS number is not memorized with a station.

"PS" représente "station préréglée". Le nombre à côté de "PS" est le numéro de station préréglée.
Lorsque "EMPTY" est également affiché, cela signifie que le numéro PS n'est pas mémorisé avec une station.

This is instructing you to depress the -⊡+ button to select the PS number.

Ceci vous dit d'appuyer sur la touche -⊡+ pour sélectionner le numéro PS.

This is instructing you to depress the ‹⊡› button to start searching for stations.

Ceci vous dit d'appuyer sur la touche ‹⊡› pour démarrer la recherche de stations.

This is instructing you to depress the ⊟ button to cancel the preset TV station.

Ceci vous dit d'appuyer sur la touche ⊟ pour annuler la station de télévision préréglée.

```
PRESET STATION
        PS 1 EMPTY
SELECT PS NO.      →A
SEARCH FOR STATION→B
```

```
STATION SEARCH
        PS 1 EMPTY
UHF X·····
   ➡
```

This tells you that station search is in progress.

Ceci vous dit que la recherche de station est en cours.

This tells you that UHF TV stations are being searched. During station search, the "X" will move.

Ceci vous dit que les stations de télévision UHF sont en train d'être recherchées. Le "X" se déplace pendant la recherche de station.

```
PRESET STATION
        PS 4
SELECT PS NO.      →A
SEARCH FOR STATION→B
CANCEL PS          →D
```

```
STATION FOUND
        PS 1 EMPTY
UHF ···X·····
SELECT PS NO.      →A
IF OK, MEMORIZE    →C
CONTINUE           →B
```

This tells you that a TV station has been found (in other words, tuned in) and station search has stopped.

Ceci vous indique qu'une station de télévision a été trouvée (en d'autres mots, syntonisée) et que la recherche de stations s'est arrêtée.

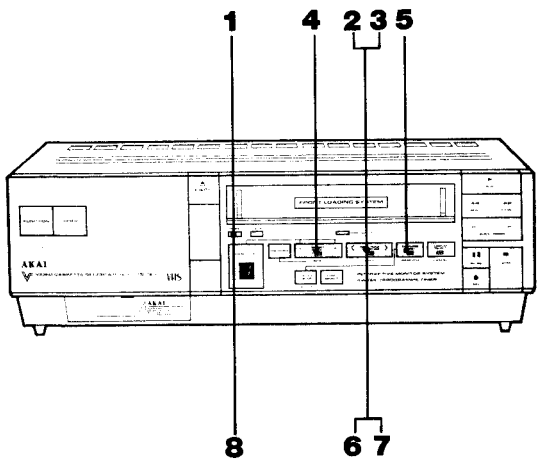
This is instructing you to depress the ⊟ button to memorize the TV station.

Ceci vous dit d'appuyer sur la touche ⊟ pour mémoriser la station de télévision.

This is instructing you to depress the ‹⊡› if you want to continue searching for TV stations.

Ceci vous dit d'appuyer sur la touche ‹⊡› si vous voulez continuer la recherche de stations de télévision.

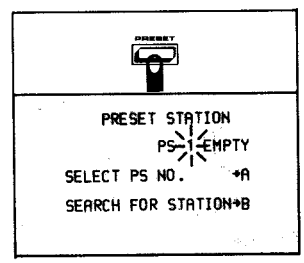
How to preset TV stations
Comment prérégler les stations de télévision



1

Depress the PRESET button to display the information for presetting the Akai VS-1 on your TV screen.

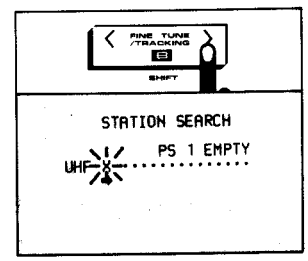
Appuyez sur la touche de préréglage (PRESET) pour afficher, sur votre écran de télévision, les informations pour le préréglage du VS-1 Akai.



2

You can preset the Akai VS-1 automatically or manually:

AUTO
To follow the instruction "SEARCH FOR STATION → B", depress the <▭>button just once.
The "X" will move from the left to right (regardless of whether the < or > side is depressed), visually indicating the search for TV stations.



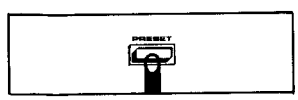
Vous pouvez prérégler le VS-1 Akai automatiquement ou manuellement.

AUTO
Suivant l'instruction "SEARCH FOR STATION → B", appuyez une seule fois sur la touche <▭> .
Le "X" de déplacera de la gauche vers la droite (que le côté < ou > soit enclenché), indiquant visuellement la recherche des stations de télévision.

8

To stop station search operation, depress the PRESET button again.
The display will disappear from the TV screen.

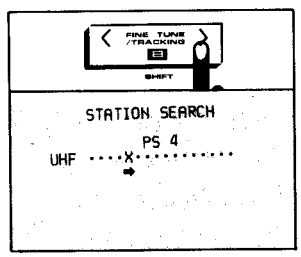
Pour arrêter la fonction de recherche de stations, appuyez à nouveau sur la touche de préréglage (PRESET).
L'affichage disparaîtra de l'écran de télévision.



7

Repeat steps 3 to 6 until you have preset all the locally available TV stations.

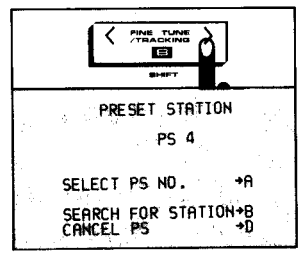
Répétez les opérations 3 à 6 jusqu'à ce que vous ayez préréglé toutes les stations de télévision disponibles localement.



6

To follow the instruction "SEARCH FOR STATION → B", depress the < ▭ > button to restart station search from where the previous station search stopped.

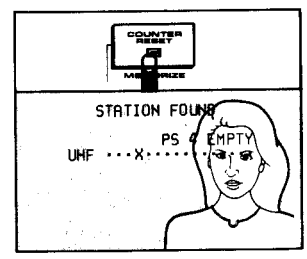
Suivant l'instruction "SEARCH FOR STATION → B", appuyez sur la touche <▭> pour redémarrer la recherche de stations à partir du point où la recherche précédente s'était arrêtée.



5

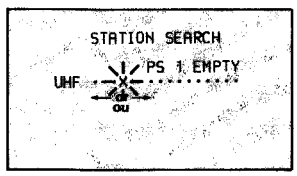
To follow the instruction "IF OK, MEMORIZE → C", depress the ▭ button to memorize the TV station into the selected preset channel number.

Suivant l'instruction "IF OK, MEMORIZE → C", appuyez sur la touche ▭ pour mémoriser la station de télévision sur le numéro de station préréglée sélectionné.



3

MANUAL
To follow the instruction "SEARCH FOR STATION → B", keep depressing the < or > side of the ‹ ▭ › button.
The "X" will move towards the left when the < side is depressed and towards the right when the > side is depressed, visually indicating the search for TV stations.



MANUELLE
Suivant l'instruction "SEARCH FOR STATION → B", maintenez enfoncé le côté < ou > de la touche ‹ ▭ ›.
Le "X" se déplacera vers la gauche lorsque le côté < est enfoncé et vers la droite lorsque le côté > est enfoncé, indiquant visuellement la recherche des stations de télévision.

AUTO
Station search stops when a TV station is found (i.e. tuned in) and this information and a program from the found TV station will be displayed.

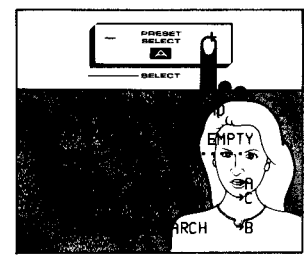
AUTO
La recherche de stations s'arrête lorsqu'une station de télévision est trouvée (c'est-à-dire syntonisée) et cette information et une émission de la station de télévision trouvée seront affichées.

MANUAL
When a station is found (i.e. tuned in), release the button. The information will be displayed.
- If the display and the program are not clear the TV station may be incapable of being memorized and TV search should be re-started Depress the < ▭ > button to re-start station search from where the previous station search stopped.
- If you do not want to memorize the station, depress the ‹ ▭ › button to resume station search.

MANUELLE
Lorsqu'une station est trouvée (c'est-à-dire syntonisée), relâchez la touche. Cette information sera affichée.
- Si l'affichage et l'émission ne sont pas clairs, la station de télévision peut peut-être ne pas être mémorisée et la recherche doit être reprise. Appuyez sur la touche ‹ ▭ › pour redémarrer la recherche de stations à partir du point où la recherche précédente s'était arrêtée.
- Si vous ne voulez pas mémoriser la station, appuyez sur la touche ‹ ▭ › pour redémarrer la recherche de stations.

4

To follow the instruction "SELECT PS NO. → A", depress the -▭+ button to select the preset channel (PS) number VS-1EG: 1, 2, 3, ... up to 8/VS-1EO: 1, 2, 3, ... up to 12.
* For convenience, select the preset channel number corresponding to the TV channel selector. For example, if channel selector 4 on your TV is tuned to TV station A, select preset channel 4.
* If "EMPTY" is not displayed after the preset channel number, that number is already memorized with a TV station and you must select another number.



Suivant l'instruction "SELECT PS NO. → A", appuyez sur la touche -▭+ pour sélectionner le numéro de station préréglée (PS) (VS-1EG: 1, 2, 3, ... jusqu'à 8/VS-1EO: 1, 2, 3, ... jusqu'à 12).
* Pour une utilisation simple, sélectionnez le numéro de station préréglée correspondant au sélecteur de canal du téléviseur. Par exemple, si le sélecteur du canal 4 de votre téléviseur est syntonisé sur la station de télévision A, sélectionnez la station préréglée 4.
* Si "EMPTY" n'est pas affiché après le numéro de station préréglée, ce numéro est déjà mémorisé avec une station de télévision et vous devez choisir un autre numéro.

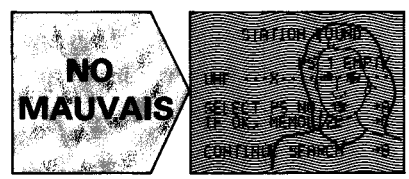
Is a TV station tuned in properly?
Une station de télévision est-elle correctement syntonisée?

The automatic station search system searches for and tunes in TV stations. This searching for TV stations is indicated by the movement of the "X". Searching stops when a TV station is tuned in. A program from the tuned in TV station will be displayed on your TV screen.

Le système automatique de recherche de station recherche et syntonise les stations de télévision. Cette recherche des stations est indiquée par le déplacement du "X". La recherche s'arrête lorsqu'une station de télévision est syntonisée. Une émission de la station de télévision syntonisée sera affichée sur votre écran de télévision.

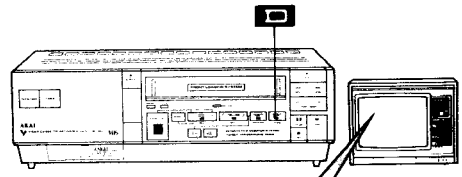
When the display and the program from the tuned in TV station are clear, you can memorize the station.

Lorsque l'affichage et l'émission de la station de télévision syntonisée sont chairs, vous pouvez mémoriser la station.



When the display and the program from the tuned in TV station are not clear, the signal from the TV station is not strong enough for clear reception. In that case, the TV station may be incapable of being memorized and TV search should be restarted. This is done by depressing the ‹ ▭ › button.

Lorsque l'affichage et l'émission de la station de télévision syntonisée ne sont pas clairs, le signal de la station de télévision n'est pas assez fort pour obtenir une réception claire. Dans ce cas, la station de télévision peut ne pas pouvoir être mémorisée et la recherche doit être reprise. Ceci s'effectue en appuyant sur la touche ‹ ▭ ›.



If you want to cancel a preset TV station

Depress the preset button.

To follow the instruction "CANCEL PS → D" depress the d buttron to cancel the preset TV station. "EMPTY" will be displayed to indicate that the TV station is canceled.

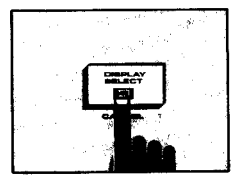
To remove the display from your TV screen, depress the PRESET button again.

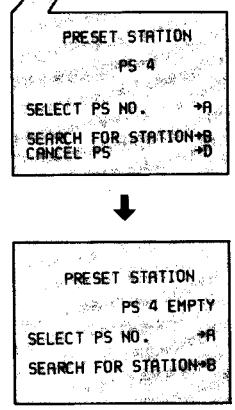
Pour annuler une station de télévision préréglée

Appuyez sur la touche PRESET.

Suivant l'instruction "CANCEL PS → D", maintenez enfoncée la touche pour annuler la station de télévision préréglée. "EMPTY" sera affiché pour indiquer que la station de télévision a été annulée.

Pour faire disparaître l'affichage de votre écran de télévision, appuyez à nouveau sur la touche PRESET.





TV search is carried out in this order

AUTO

UHF → VHF

When all the frequencies have been scanned, the information for the end of station search will be displayed on your TV screen and a few seconds later it will disappear.

MANUAL

UHF → VHF → UHF → ... and so on .....

During manual station search, scanning is continuous. The information for the end of station search will not be displayed on your TV screen.

La recherche TV s'effectue dans cet ordre

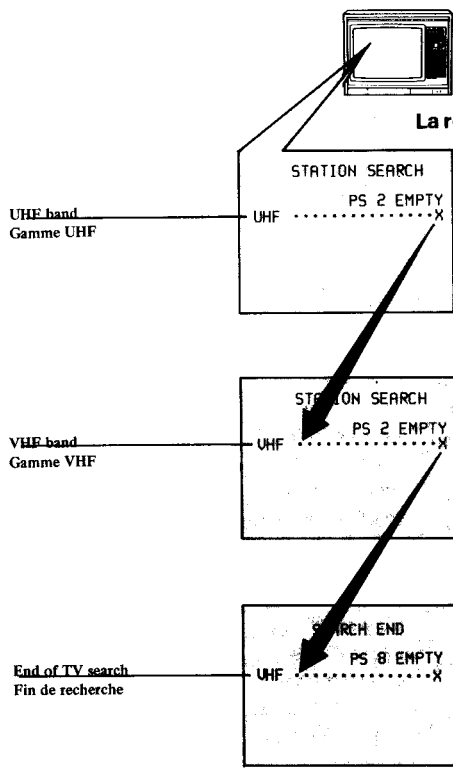
AUTO

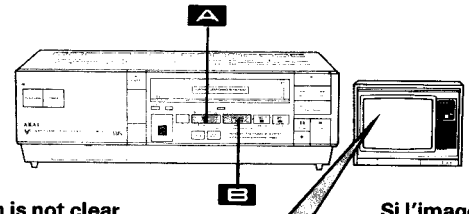
UHF → VHF

MANUELLE

UHF → VHF → UHF .... etc.

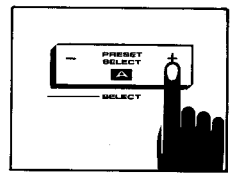
Pendant la recherche manuelle de stations, le balayage est continu. Les informations de fin de recherche de stations ne seront pas affichées sur votre écran de télévision.





If the picture from a preset TV station is not clear.

If the color is off when a preset TV station is selected with the -▣+ button, use the < ▣ > button to finely tune it in.



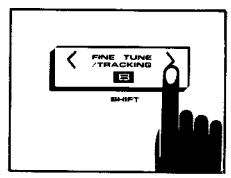
Depress the < ▣ > button to show the display for fine tuning.

Depress the < side to move the "X" to the left and the > side to move the "X" to the right.

* Holding down the button will move the "X" continuously.
* To carry out the fine tuning operation more slowly, depress the button repeatedly in succession. If you release the button for too long, the display will disappear. In that case, depress the button again.

When a program is clearly tuned in, release the button to stop the fine tuning operation.

* The display will disappear a few seconds later.



Si l'image de la station de télévision préréglée n'est pas claire

Si la couleur est terne lorsqu'une station de télévision préréglée est sélectionnée avec la touche -▣+ , utilisez la touche < ▣ > pour la syntoniser finement.

Appuyez sur la touche ‹▣› pour obtenir l'affichage de syntonisation fine.

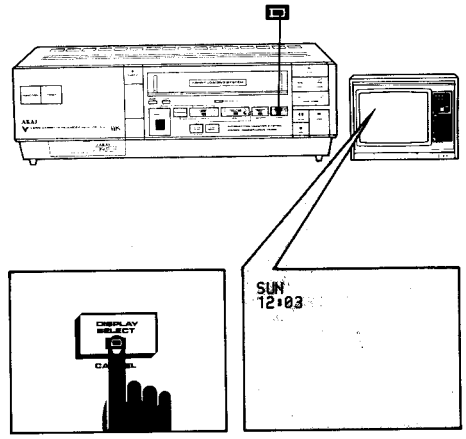
Appuyez sur le côté < pour déplacer le "X" vers la gauche et sur le côté > pour déplacer le "X" vers la droite.

* Le fait de maintenir la touche enfoncée fera se déplacer continuellement le "X".
* Pour effectuer plus lentement l'opération de syntonisation fine, appuyer de façon répétée sur la touche. Si vous relâchez la touche pendant trop longtemps, l'affichage disparaîtra. Appuyez à nouveau sur la touche dans ce cas.

Loursqu'une émission est clairement syntonisée, relâchez la touche pour arrêter l'opération de syntonisation fine.

* L'affichage disparaîtra quelques secondes plus tard.

Let's study the use of the DISPLAY SELECT button
Etudions l'utilisation de la touche d'affichage



During recording or playback, you can display 5 convenient pieces of information on your TV screen by repeatedly depressing the ▣ button.

1. Day of the week and actual time

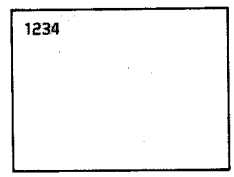
Pendant un enregistrement ou une reproduction, vous pouvez afficher 5 informations pratiques sur votre écran de télévision en appuyant de façon répétée sur la touche ▣

1. Jour de la semaine et heure réelle

2. Tape counter

Shows the relative position of the tape.

NOTE:
To reset the tape counter to "0000", depress the ▣ button.

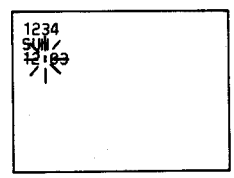


2. Compteur de bande

Indique la position relative de la bande.

REMARQUE:
Appuyez sur la touche ▣ pour remettre à "0000' le compteur de bande.

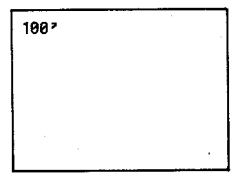
3. Tape counter/day of the week and actual time



3. Compteur de bande/jour de la semaine et heure réelle

4. Tape remaining time

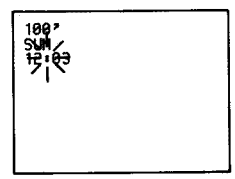
* Shows you in 5 minute intervals how long until the end of the tape.
* Set the TAPE SELECT button first. Refer to page 18.
* "???" indicates that the Akai VS-1 is calculating the tape time remaining.
* Tape remaining time cannot function during rewind and fast forward. "???" will be displayed.



4. Temps restant sur la bande

* Vous indique toutes les 5 minutes le temps restant jusqu'à la fin de la bande.
* Réglez tout d'abord la touche de sélection de bande (TAPE SELECT). Reportez-vous page 18.
* "???" indique que le VS-1 Akai est en train de calculer le temps restant sur la bande.
* La fonction de temps restant sur la bande ne peut s'effectuer pendant le rembobinage et l'avance rapide. "???" sera affiché.

5. Tape remaining time/day of the week and actual time



5. Temps restant sur la bande/jour de la semaine et heure réelle

Note:
On the accuracy of the tape remaining time counter. As the tape remaining time counter does not function as a clock, there is some error in it's counting of time. The counter is intended only as a guide and not as an exact measurement of remaining time.

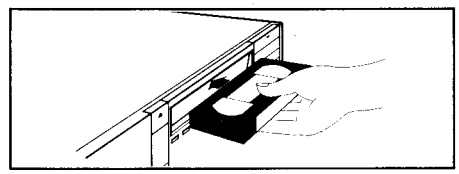
REMARQUE:
Sur la précision du temps restant sur la bande.
Le compteur de temps restant n'étant pas une horloge, l'indication n'est pas exacte. Ce compteur n'est qu'un guide du temps restant, et non une mesure exacte du temps restant.

How to load and unload a video cassette tape
Comment charger et décharger une bande cassette vidéo

Important
A video cassette tape can be loaded or unloaded only when the Akai VS-1 is turned on.
* Confirm that the POWER switch is set to ON (⏏) and the FUNCTION button is turned on (its indicator is lit).

Loading

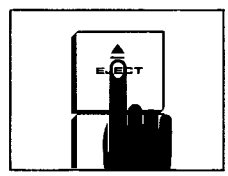
Insert the video cassette tape correctly into the cassette loading compartment and give it a little push.
* Follow the markings on the video cassette tape to correctly insert it into the cassette loading compartment. If the video cassette tape is not inserted correctly, it will be ejected.

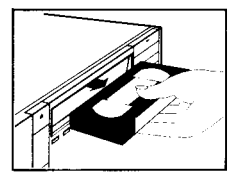


Unloading

Depress the EJECT (▲) button. The video cassette tape will be ejected. Take out the video cassette tape.

NOTE:
The EJECT (▲) button can be depressed any time except during recording.



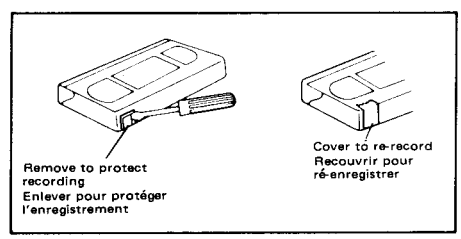


On video cassette tapes

- Only VHS video cassette tapes may be used with the Akai VS-1.

- To protect a recording, remove the recording defeat tab with a screwdriver. To re-record, cover the cavity with a piece of adhesive tape.
- Never touch the video tape with your fingers.
- Never open the video cassette tape case.
- Store standing on end in a well ventilated place, away from objects with strong magnetic fields and away from bright lighting.

NOTE:
- Before recording or playing back a video cassette tape, be sure to forward the tape slightly so that the leader tape (the transparent part of the tape) is not in the head path.



Important
Une bande cassette vidéo ne peut être chargée ou déchargée que lorsque le VS-1 Akai est sous tension.
* Vérifiez que le commutateur d'alimentation (POWER) est réglé sur marche (ON ⏏) et que la touche de fonction (FUNCTION) est sous tension (son indicateur est allumé).

Chargement

Insérez correctement la bande cassette vidéo dans le compartiment de cassette et poussez-la legèrement.
* Suivez les repères indiqués sur la bande cassette vidéo pour la charger correctement dans le compartiment. Si la bande cassette vidéo n'est pas correctement chargée, elle sera éjectée.

Déchargement

Appuyez sur la touche d'éjection (EJECT ▲). La bande cassette vidéo sera éjectée. Sortez-la du compartiment.

REMARQUE:
La touche d'éjection (EJECT ▲) peut être enclenchée à n'importe quel moment, sauf pendant un enregistrement automatique et un enregistrement heure "sommeil"

Sur les bandes cassettes vidéo

- Seules des bandes cassettes vidéo VHS peuvent être utilisées avec le VS-1 Akai.

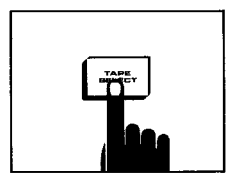
- Pour protéger un enregistrement, enlevez la languette de protection contre l'enregistrement avec un tournevis. Recouvrez la cavité d'un morceau de bande adhésive pour ré-enregistrer.
- Ne touchez jamais la bande vidéo avec les doigts.
- N'ouvrez jamais le boîtier de la bande cassette vidéo.
- Stockez les cassettes debout, dans un endroit bien aéré, loin d'objets dégageant de forts champs magnétiques et loin des rayons directs du soleil.

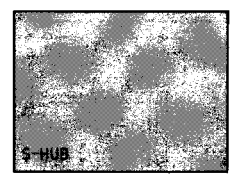
REMARQUE:
- Avant d'enregistrer ou de reproduire une bande cassette vidéo, assurez-vous de faire avancer légèment la bande de sorte que la partie amorce (la partie transparente de la bande) ait dépassé la tête.

On the TAPE SELECT button

The Akai VS-1 is equipped with a tape remaining time system time there is which tells you in 5 minute intervals how long until the end of the tape. Video cassette tape's reel hub sizes vary according to the tape length. Therefore, in order to accurately calculate the tape remaining time, the Akai VS-1 is equipped with the TAPE SELECT button. Before recording or playing back the video cassette tape, set the TAPE SELECT button according to the reel hub size. The position of the TAPE SELECT button will be displayed on the TV screen for approximately 3 seconds. (* Refer to page 17.)

L-HUB	E-30 or E-60 tape
S-HUB	E-90, E-120 or E-180 tape
E-240	E-240 tape



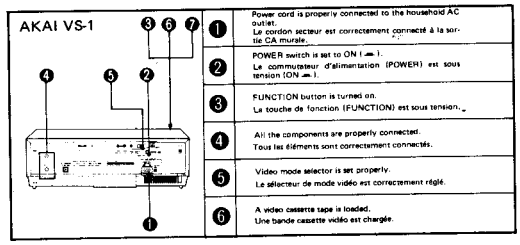


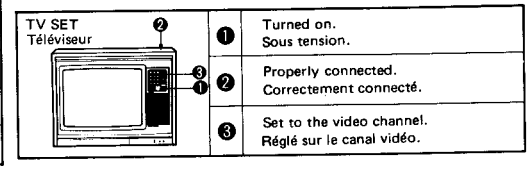
Sur la touche de sélection de bande (TAPE SELECT)

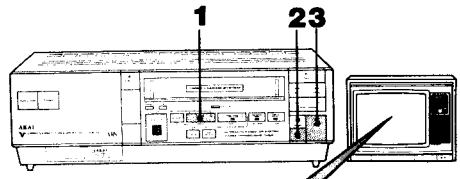
Le VS-1 Akai est équipé d'un système de temps restant sur la bande qui vous indique à des intervalles de 5 minutes la durée restant jusqu'à la fin de la bande. Les dimensions du moyeu de bobine des bandes cassettes vidéo varient selon la longueur de la bande. Afin de calculer précisément le temps restant sur la bande, le VS-1 Akai incorpore donc une touche de sélection de bande (TAPE SELECT). Avant d'enregistrer ou de reproduire une bande cassette vidéo, réglez la touche de sélection de bande selon les dimensions du moyeu de la bobine. La position de la touche de sélection de bande sera affichée pendant approximativement 3 secondes sur l'écran de télévision.

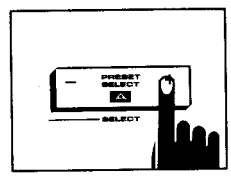
L-HUB	Bande E-30 ou E-60
S-HUB	Bande E-90, E-120 ou 180
E-240	Bande E-240

Let's record a TV program
Enregistrement d'une émission de télévision









1

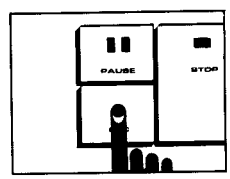
Depress the -⏏+ button to select the preset channel number memorized with the TV station to be recorded.

- The program from the selected TV station will be displayed on your TV screen. At the same time, the selected preset channel number will be displayed on the TV screen for approximately 3 seconds.
- If you repeatedly depress the -⏏+ too quickly, the PS number shown on the TV screen might not correctly indicate the TV station selected. However, the PS number shown on the PRESET (PS) display on the front of the Akai VS-1 will correctly show the PS number.

1

Appuyez sur la touche -⏏+ pour sélectionner le numéro de station préréglée mémorisé avec la station de télévision à enregistrer.

- L'émission de la station de télévision sélectionnée sera affichée sur votre écran de télévision. Le numéro de la station préréglée sélectionnée sera en même temps affiché sur l'écran de télévision pendant approximativement 3 secondes.
- N'appuye pas trop rapidement et de façon répétée sur la touche -⏏+
  Le numéro PS indiqué sur l'écran de télévision peut ne pas indiquer correctement la station de télévision sélectionnée. Le numéro PS indiqué sur l'affichage préréglé PS (PRESET) sur l'avant du VS-1 indiquera cependant le numéro PS correct.



2

Depress the REC (●) button for at least one second to begin recording.

- "REC" will be displayed on your TV screen for approximately 3 seconds.

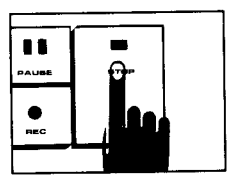
NOTE:
There is a 3 to 4 second delay before recording starts, while tape moves ito position. For instant recording starts, refer to page 21.

2

Appuyez sur la touche d'enregistrement (REC ●) pendant au moins une seconde pour démarrer l'enregistrement.

- "REC" sera affiche sur votre écran de télévision pendant approximativement 3 secondes.

REMARQUE:
Il y an un délai de 3 à 4 secondes avant que l'enregistrement commence, pendant que la bande se place en position. Pour un démarrage instantané de l'enregistrement, reportez-vous page 21.



3

To stop recording depress the STOP (■) button.

- "STOP" will be displayed on your TV screen for approximately 3 seconds.

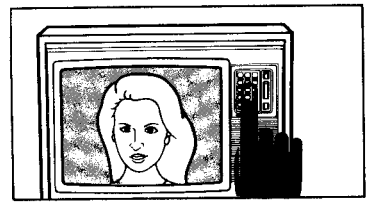
3

Appuyez sur la touche d'arrêt (STOP ■) pour arrêter l'enregistrement.

- "STOP" sera affiché sur votre écran de télévision pendant approximativement 3 secondes.

To watch one program while recording another

If you want to watch a program on a different channel, just depress the TV's channel selector corresponding to the program you want to watch.



Pour regarder une émission tout en enregistrant une autre

Si vous voulez regarder une émission sur une chaîne différente, il vous suffit d'appuyer sur le sélecteur de canal du téléviseur correspondant à l'émission que vous voulez regarder.

NOTE:

- Recording can be stopped temporarily by depressing the PAUSE (▮▮) button.
  To prevent damages to the tape, do not remain in pause for more than 4 minutes.
  After 4 minutes the Akai VS-1 will automatically go into stop.
  To resume recording depress the REC (●) button.
- To fast forward the tape, depress the F.FWD (►►) button.
  - "FF" will be displayed on the TV screen for approximately 3 seconds.
- To rewind the tape, depress the REW (◄◄) button.
  - "REW" will be displayed on the TV screen for approximately 3 seconds.
- To stop the tape, depress the STOP (■) button or depress the PLAY (►) button to begin playback.
- The tape is not played back during fast forward or rewind operation.
- If the REC (●) button will not function, check to see if the video cassette tape's recording defeat tab is broken. If it is, cover the hole with a piece of adhesive tape.

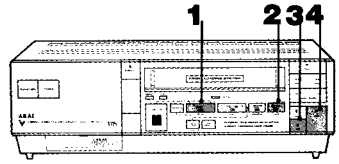
Whenever the end of the tape is reached, the tape will automatically rewind to the beginning and stop.

REMARQUE:

- L'enregistrement peut être provisiorement arrêté en appuyant sur la touche de pause (PAUSE ▮▮).
  Pour éviter tout dommage à la bande, ne restez pas en mode de pause pendant plus de 4 minutes. Après 4 minutes, le magnétoscope se mettra automatiquement sur le mode d'arrêt.
  Pour reprendre l'enregistrement, appuyez sur la touche d'enregistrement (REC ●).
- Appuyez sur la touche d'avance rapide (F.FWD ►►) pour faire avancer rapidement la bande.
  - "FF" sera affiché sur votre écran de télévision pendant approximativement 3 secondes.
- Appuyez sur la touche de rembobinage (REW ◄◄) pour rembobiner la bande.
  - "REW" sera affiché sur votre écran de télévision pendant approximativement 3 secondes.
- Pour arrêter la bande, appuyez sur la touche d'arrêt (STOP ■) ou appuyez sur la touche de reproduction (PLAY ►) pour démarrer la reproduction.
- La bande n'est pas reproduite pendant l'avance rapide ou le rembobinage.
- Si la touche d'enregistrement (REC ●) ne fonctionne pas, vérifiez pour voir si la languette de protection contre l'enregistrement de la bande cassette vidéo est cassée. Si elle l'est, recouvrez la cavité d'un morceau de bande adhésive.

Lorsque l'extrémité de la bande est atteinte, la bande se rembobinera automatiquement jusqu'à son début et s'arrêtera.

Would you like to index your recordings?
Voulez-vous indexer vos enregistrements?

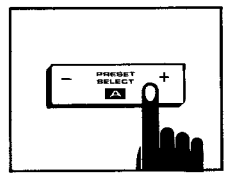


The date, time and preset channel number can be recorded automatically at the beginning of a recording for approximately 7 seconds. When you play back a tape you can tell when it was recorded.

1

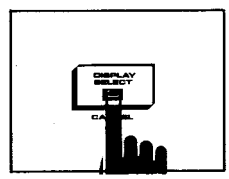
Depress the -+ button to select the preset channel number memorized with the TV station to be recorded.

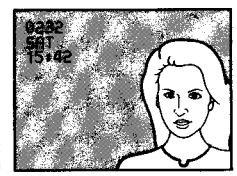
* The program from the selected TV station will be displayed on the TV screen. At the same time, the selected preset channel number will be displayed on the TV screen for approximately 3 seconds.



2

Repeatedly depress the ▣ button until a display containing the day of the week and the actual time is shown on the TV screen.

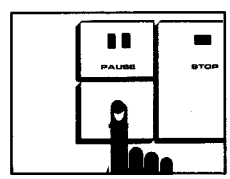




3

Depress the REC (●) button for at least one second to begin recording.

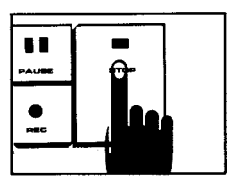
* The index (date, time and preset channel number) will be displayed on the middle of the TV screen. This display will be recorded for approximately 7 seconds.

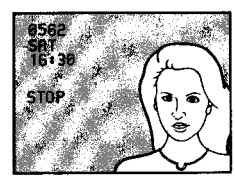


4

To stop recording, depress the STOP (■) button.

* "STOP" will be displayed on the TV screen for approximately 3 seconds.





NOTE:

- If you do not want to record the index, repeatedly depress the ▣ button until the day of the week and the actual time are no longer displayed.

La date, l'heure et le numéro de station préréglée peuvent être automatiquement enregistrés au début d'un enregistrement pendant approximativement 7 secondes. A la reproduction vous savez quand la bande a été enregistrée.

1

Appuyez sur la touche -+ pour sélectionner le numéro de station préréglée mémorisé avec la station de télévision à enregistrer.

* L'émission de la station de télévision sélectionnée sera affichée sur l'écran de télévision. Le numéro de station préréglée sélectionné sera en même temps affiché sur l'écran de télévision pendant approximativement 3 secondes.

2

Appuyez de façon répétée sur la touche ▣ jusqu'à ce qu'un affichage contenant le jour de la semaine et l'heure réelle soit obtenu sur l'écran de télévision.

3

Appuyez sur la touche d'enregistrement (REC ●) pendant au moins une seconde pour démarrer l'enregistrement.

* L'index (la date, l'heure et le numéro de station préréglée) sera affiché au milieu de l'écran de télévision. Cet affichage sera enregistré pendant approximativement 7 secondes.

4

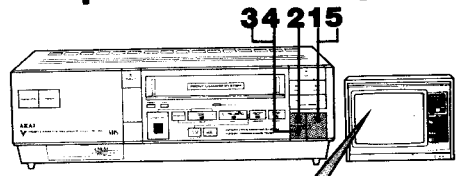
Pour arrêter l'enregistrement, appuyez sur la touche d'arrêt (STOP ■).

* "STOP" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

REMARQUE:

- Si vous ne voulez pas enregistrer l'index, appuyez de façon répétée sur la touche ▣ jusqu'à ce que le jour de la semaine et l'heure réelle ne soient plus affichés.

How to quickly start recording
Comment démarrer rapidement un enregistrement

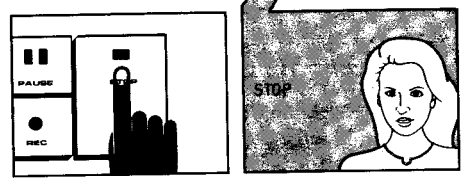


If you want to record as soon as the REC (●) button is depressed, just put the Akai VS-1 into recording standby.

Si vous voulez commencer à enregistrer aussitôt que la touche d'enregistrement (REC ●) est enfoncée, il vous suffit de mettre le VS-1 Akai en attente d'enregistrement.

1

Depress the STOP (■) button.
* "STOP" will be displayed on the TV screen for approximately 3 seconds.

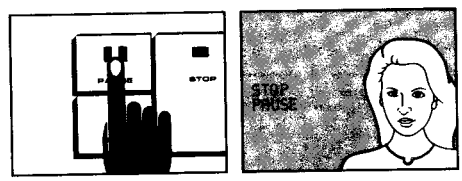


1

Appuyez sur la touche d'arrêt (STOP ■).
* "STOP" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

2

Depress the PAUSE (▮▮) button.
* "STOP PAUSE" (pause during stop) will be displayed on the TV screen for approximately 3 seconds.

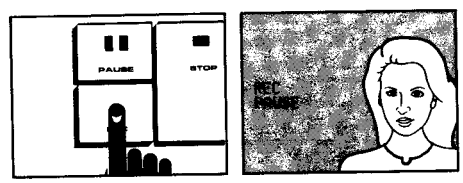


2

Appuyez sur la touche de pause (PAUSE ▮▮).
* "STOP PAUSE" (pause pendant l'arrêt) sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

3

Depress the REC (●) button for at least 1 second to put the Akai VS-1 into recording standby.
* "REC PAUSE" (pause during recording) will be displayed on the TV screen for approximately 3 seconds.

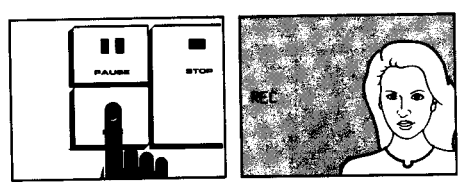


3

Appuyez sur la touche d'enregistrement (REC ●) pendant au moins une seconde pour mettre le VS-1 Akai sur le mode d'attente d'enregistrement.
* "REC PAUSE" (pause pendant l'enregistrement) sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

4

Depress the REC (●) button again for at least 1 second.
Recording will start immediately.
* "REC" will be displayed on the TV screen for approximately 3 seconds.

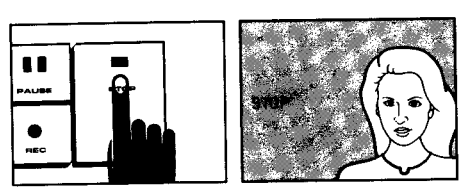


4

Appuyez à nouveau sur la touche d'enregistrement (REC ●) pendant au moins 1 seconde.
L'enregistrement d'emarrera immediatement.
* "REC" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

5

To stop recording, depress the STOP (■) button.
* "STOP" will be displayed on the TV screen for approximately 3 seconds.



5

Pour arrêter l'enregistrement, appuyez sur la touche d'arrêt (STOP ■).
* "STOP" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

NOTE:
To prevent damage to the tape, do not remain in the recording standby for more than 4 minutes. After 4 minutes the Akai VS-1 will automatically go into stop.

REMARQUE:
Pour éviter tout dommage à la bande, ne restez pas sur le mode d'attente d'enregistrement pendant plus de 4 minutes. Après 4 minutes, le VS-1 Akai se mettra automatiquement sur le mode d'arrêt.

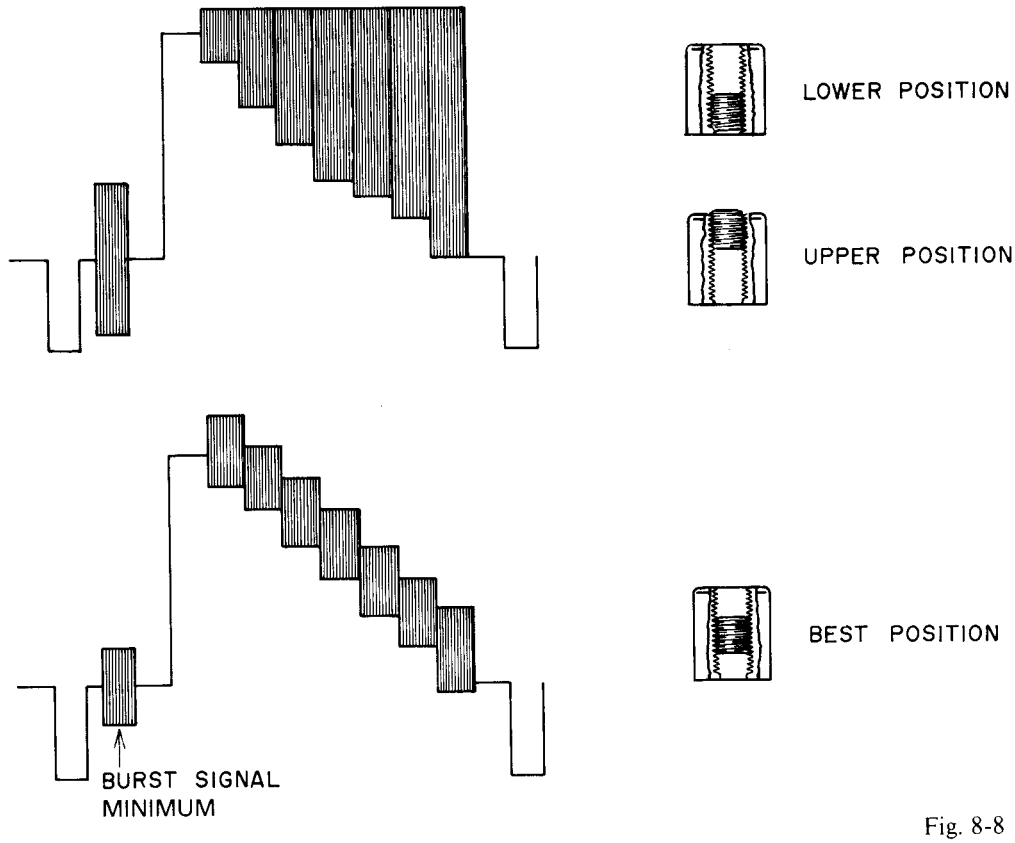


Fig. 8-8

8-4-2. AFT ADJUSTMENT (Refer to Fig. 8-10 to Fig. 8-12)

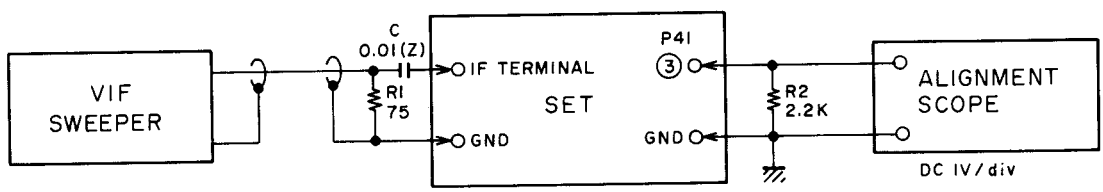


Fig. 8-9

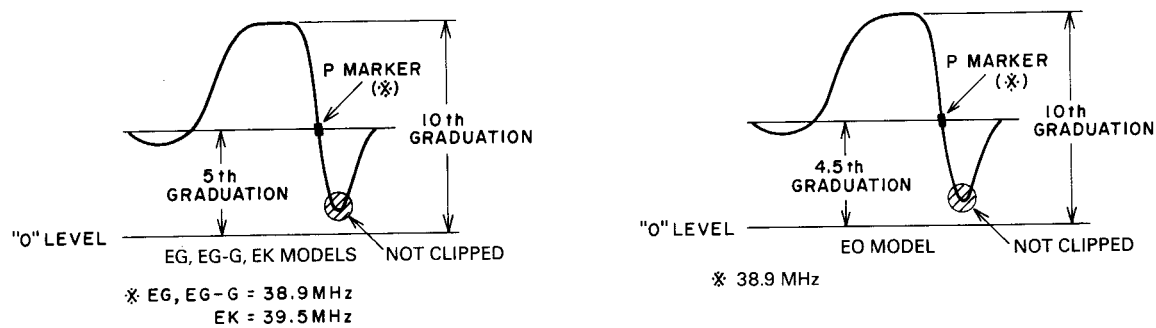


Fig. 8-10

a) Connect VIF sweeper output 70 dB to the IF terminal.
b) Connect an alignment scope to the AFT terminal (Pin of P 41).
c) Give an optional size to the waveform with the IF AGC volume, and make approximate adjustment with L5 so that the marker will be positioned at 5th graduation (4.5th graduation for EO model) of the alignment scope.
d) Stop with IF AGC volume before the waveform is clipped.
e) Adjust with L5 so that the marker (EG, EG-G, EO = 38.9 MHz, EK = 39.5 MHz) will be at 5th graduation (4.5th graduation for EO model) of the alignment scope (Fig. 8-10).

8-4. DEMODULATOR ADJUSTMENT

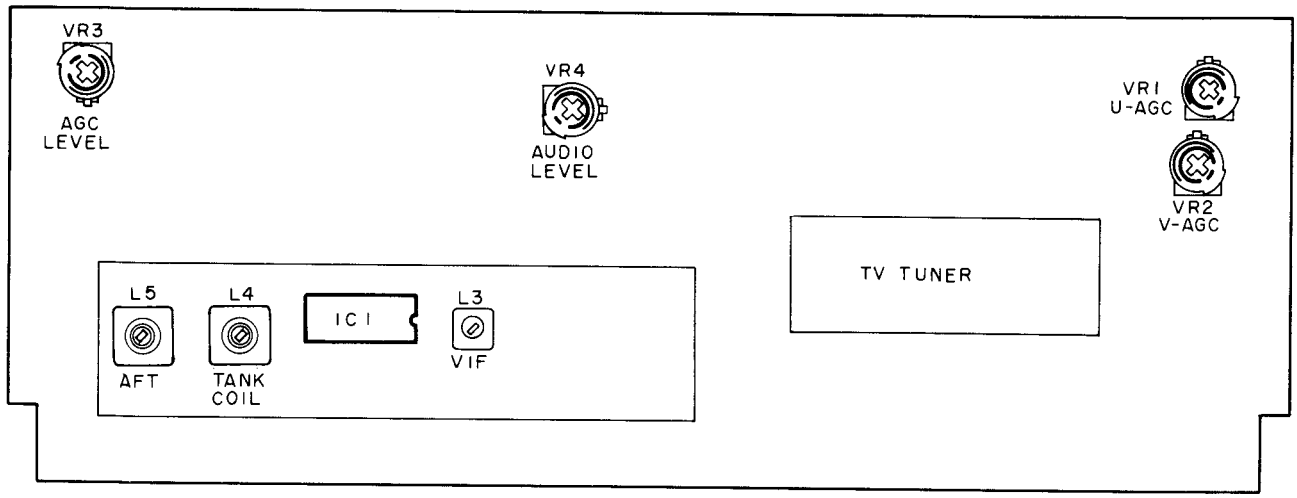


Fig. 8-6 Demodulator P.C Board Adjustment Point

8-4-1. TANK COIL ADJUSTMENT (Refer to Fig. 8-6 to Fig. 8-7)

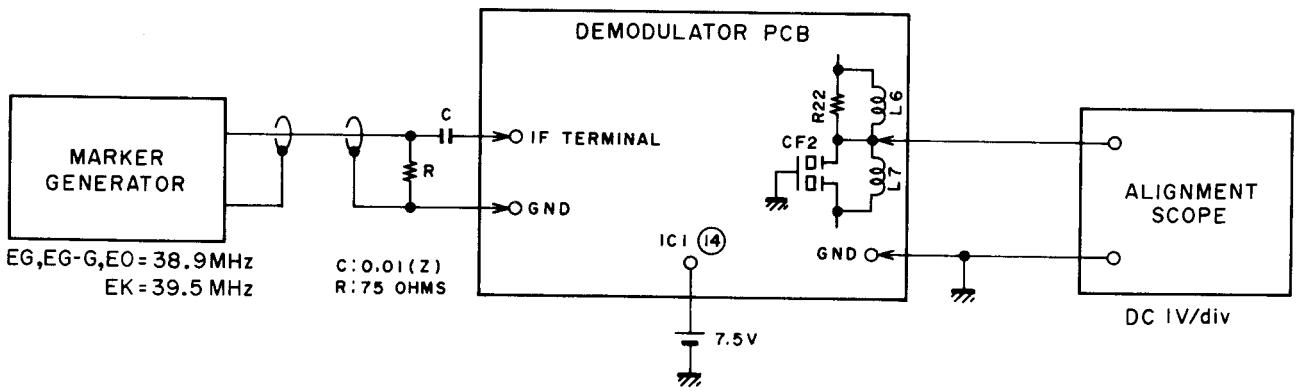
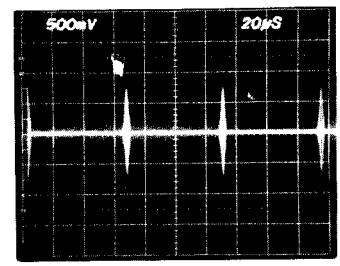
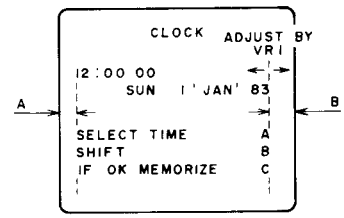
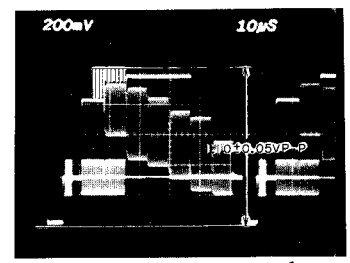


Fig. 8-7

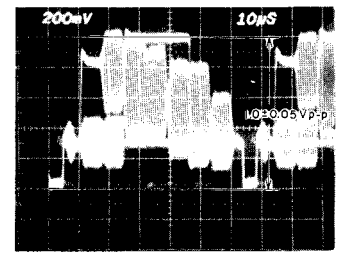
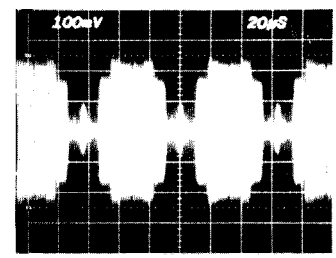
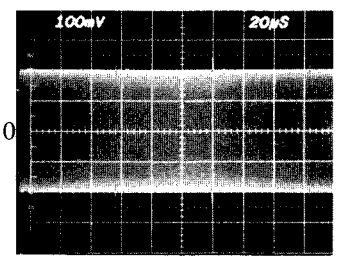
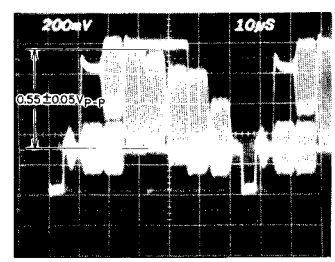
a) Apply 50 mVp-p in IF frequency (EG, EG-G, EO) = 38.9 MHz, EK = 39.5 MHz.
b) Connect the alignment scope as shown in Fig. 8-7.
c) Apply DC 7.5V to Pin ⑭ of IC1.
d) Adjust L4 so that the DC voltage appearing on the alignment scope will be minimum.

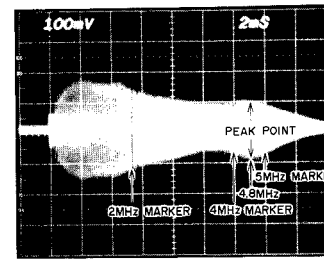
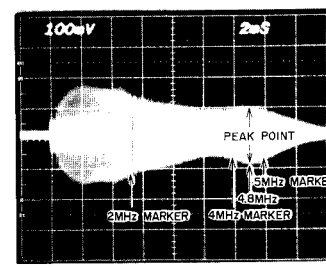
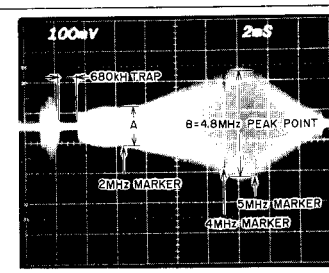
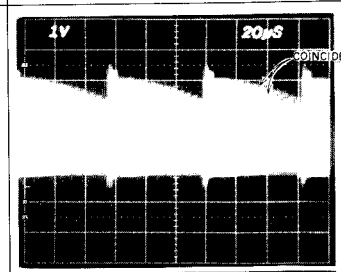
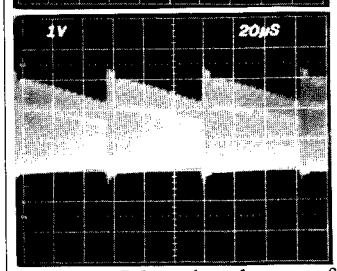
* If only the TANK COIL (L4) was replaced, this adjustment can be accomplished as follows.

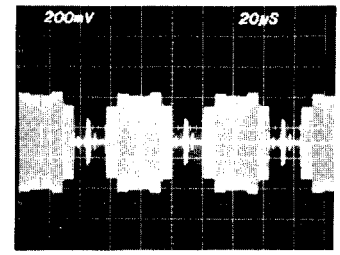
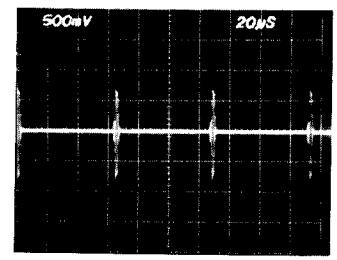
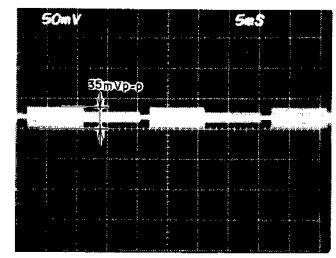
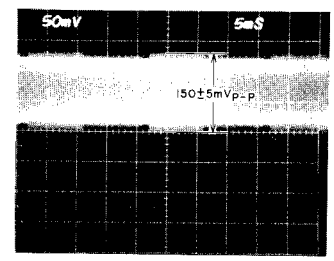
a) Receive a video signal (color bar, etc) and observe the video output signal.
b) Turn the TANK COIL (L4) counter-clockwise from Lower end (core moves upwards) so that the level of the burst signal becomes minimum as shown in Fig. 8-8.

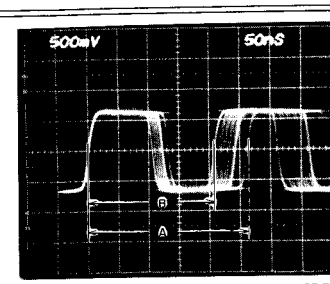
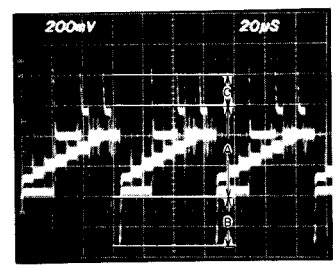
Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
19	PB Gated Burst check	Color Bar Tape (AT750797)	PB	TP13	Confirmation	 Confirm that the color burst signal is picked out properly as shown above.
20	Charactor Position		EE	Monitor screen	VR1 (Operation PCB)	 1. Display the character on the monitor screen. 2. Adjust VR1 so that the space A : B = 1 : 1.5
21	B/C Clip level	Color Bar from Color Bar Generator	PB	TP2	VR6	 1. Display the character on the monitor screen. 2. Adjust VR6 so that the character level from the sync tip is 1.10 ±0.05 Vp-p.

Note: The adjustment in Step 10 can be accomplished by checking either one of two test points (TP19 or TP20), use the another one for confirmation.

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
15	PB Y level	Color Bar Tape (AT750797)	PB	TP2	VR9	 Adjust VR9 so that the video signal level at TP2 is 1.0±0.05Vp-p.
16	Local OSC	Color Bar Tape (AT750797)	PB	TP15	VR2	1. Connect a frequency counter to TP15. 2. Adjust VC2 so that the frequency counter reads 4.433619MHz±10Hz
17	PB ACC Check	Color Bar Tape (AT750797)	PB	TP9 TP10	Confirmation	TP9  TP10  Confirm that the waveform at TP9 and TP10 are as shown above.
18	PB Chroma level	Color Bar Tape (AT750797)	PB	TP2	VR11	 Adjust VR11 so that the cyan level is within 0.55±0.05Vp-p.

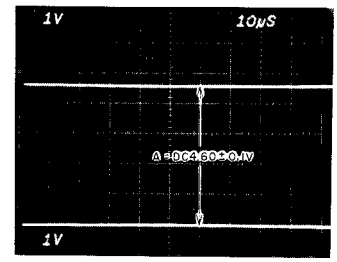
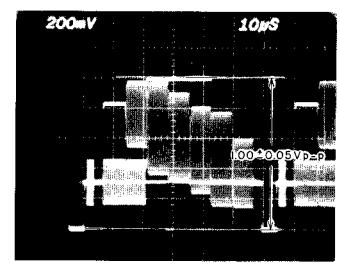
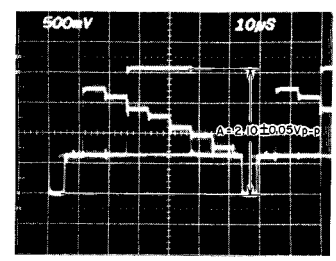
Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
12	Head peak (F0) Frequency	RF Sweep Tape (AT750802)	PB	TEST POINT TC-1 PIN ③	VC301 (CH-1) VC302 (CH-2)	(CH-1)  1. Adjust VC301 (CH-1) so that the Peak Frequency is 4.8 ±0.1 MHz as shown above. (CH-2)  2. Adjust VC302 (CH-2) so that the peak Frequency is 4.8 ±0.1 MHz as shown above.
13	Video Head Q (Peaking)	RF Sweep Tape (AT750802)	PB	TR305 emitter (TP23)	VR301	 1. Adjust VR301 so that "Q" is set at the ratio of A:B = 1:3.2±0.1 2. Confirm that the trap for 680kHz is activated as shown above.
14	Carrier Balance	Reference Tape (AT750795)	PB	TP17	VR8	 (NO GOOD)  (GOOD) Adjust VR8 so that the waveform is as shown above.

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
9	REC ACC check	Color Bar from Color Bar Generator	EE	TP9 TP25	Comfirmation	 1. Connect an oscilloscope to TP9 and confirm that the waveform is as shown above. 2. Connect an oscilloscope to TP25 and confirm that the signal disappears when Mode switch is changed to B/W position.
10	Gated Burst Check	Color bar from Color Bar Generator	EE	TP13	Confirmation	 Confirm that the color Burst signal is picked out properly as shown above.
11	REC Current	Color Bar from Color Bar Generator	REC	TP19 (CH-1) or TP20 (CH-2)	VR10 VR2	1. Turn the VR2 fully counterclockwise.  2. Adjust VR10 so that the chroma REC current waveform is 35 ±3 mVp-p as shown above.  3. Adjust VR2 so that the Y REC current waveform is 150 ±5 mVp-p as shown above.

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
5	FM OSC	Color Bar from Color Bar Generator	EE	TP21	VC1 (Carrier set) VR5 (Deviation)	 Carrier set A = 0.263 μS (3.8 MHz) Deviation B = 0.208 μS (4.8 MHz)
6	White clip and Dark clip	Color Bar from Color Bar Generator	EE	TP6	VR1 (White clip) VR3 (Dark clip)	 2. Adjust VR1 and VR3 so that the waveform at TP6 is as shown above. White clip A:B=1.0:0.6 Dark clip A:C=1.0:0.4
7	AFC 625kHz Check	Color Bar from Color Bar Generator	EE	TP18	Confirmation	1. Mode switch to COLOR 2 2. Supply color bar signal to line input. 3. Connect a frequency counter and oscilloscope to TP18. 4. Confirm that the frequency of the waveform is 625kHz of Duty 50%.
8	APC OSC	Color Bar from Color Bar Generator	EE	TP10	VC3	1. Mode switch to COLOR 2 2. Supply color bar signal to line input. 3. Connect a frequency counter and oscilloscope to TP10. 4. Adjust VC3 so that the frequency counter reads 5.06571MHz ± 10Hz. 5. Confirm that the level of the waveform is about 400mVp-p.

Caution

1. The output of the Color Bar Generator should be 1.0 Vp-p.
2. The Video Out terminal should be terminated with 75 ohms (dummy or MONITOR T.V)

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
1	AFC	Color Bar from Color Bar Generator	EE	TP14	VR12	 Adjust VR12 so that A is within DC4.6±0.1V
2	VIDEO Judge circuit check	Color Bar from Color Bar Generator	EE	TP16	Confirmation	1. At the same condition as step 1 confirm that the voltage at TP16 is about DC12V. 2. Disconnect the VIDEO Input (Non VIDEO condition) and confirm that the voltage at TP16 is DC OV.
3	EE level	Color bar from Color Bar Generator	EE	TP2 TP3	VR7	 1. Adjust VR7 so that the VIDEO Output (TP2) is within 1.00±0.05Vp-p. 2. Confirm that RF output (both Y & chroma signals) is appeared at TP3.
4	AGC Gain	Color Bar from Color Bar Generator	EE	TP5	VR4	 1. Adjust VR4 so that A is within 2.10±0.05Vp-p.

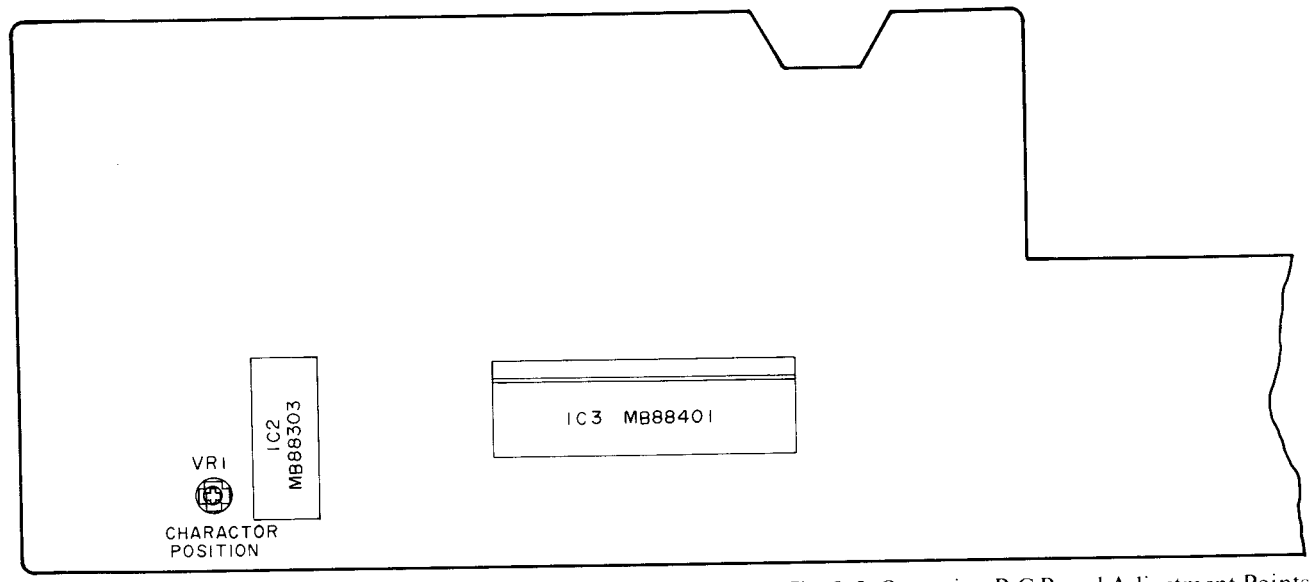


Fig. 8-5 Operation P.C Board Adjustment Points

8-3. VIDEO ADJUSTMENT

No.	CHECK ITEM
TP1	VIDEO IN
TP2	VIDEO OUT
TP3	RF OUT
TP4	REC VIDEO
TP5	AGC GAIN
TP6	PRE EMPHASIS
TP7	PRE OUT (FM ENVELOPE)
TP8	PB ACC IN
TP9	ACC OUT

No.	CHECK ITEM
TP10	5.06 MHz (APC)
TP11	PB AMP OUT
TP12	BGP.
TP13	GATED BURST
TP14	AFC
TP15	LOCAL OSC
TP16	VIDEO J
TP17	CARRIER BAL.
TP18	CW OUT

No.	CHECK ITEM
TP19	CH-1 REC CURRENT
TP20	CH-2 REC CURRENT
TP21	FM OSC OUT
TP22	APC FREQUENCY
TP23	1st PEAKING
TP24	LIMITER BAL.
TP25	CHROMA OUT

Chart 8-2 VIDEO P.C Board Test Points

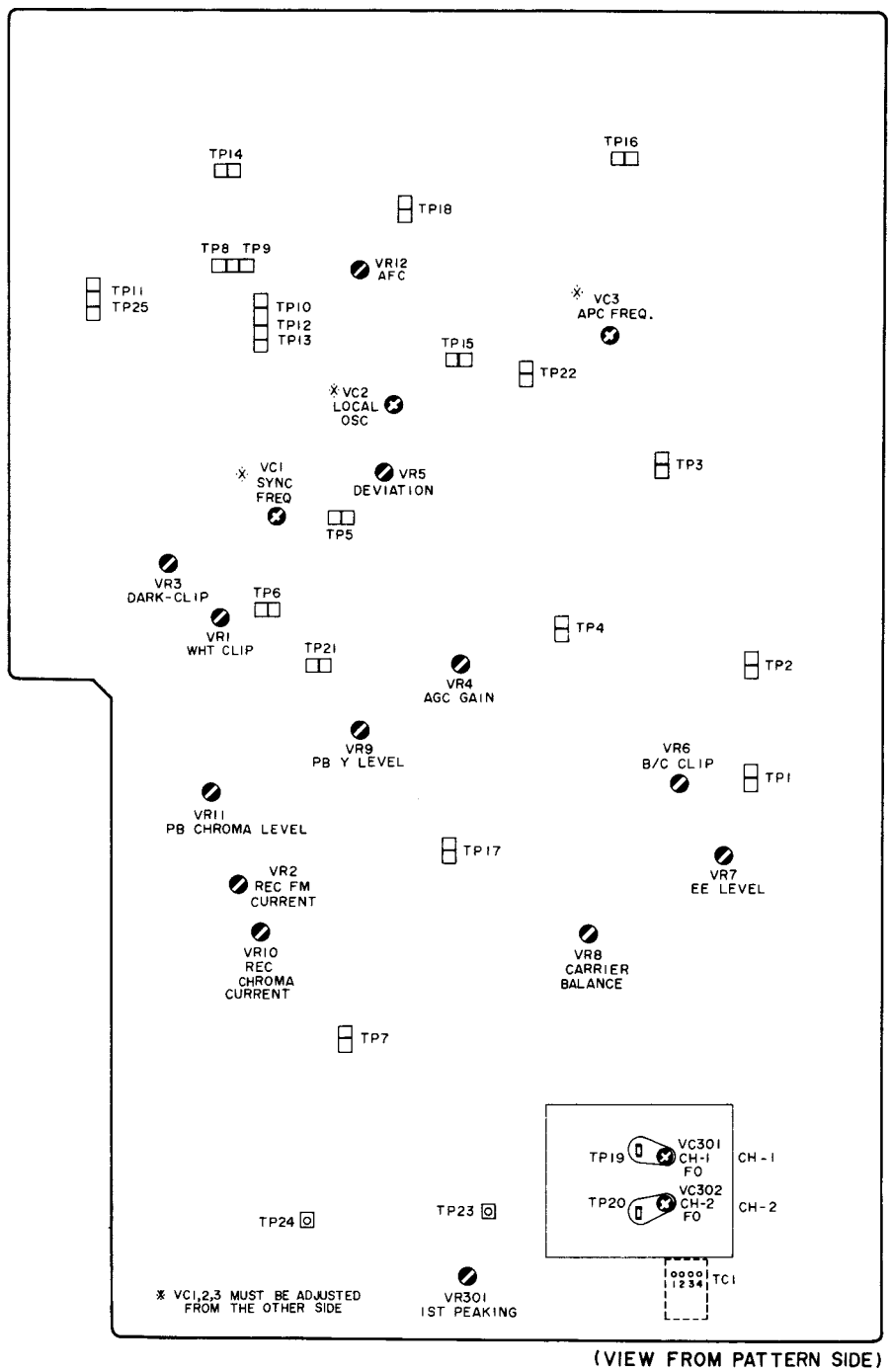


Fig. 8-4 Video P.C Board Adjustment Points

8-2. AUDIO ADJUSTMENT (For adjustment points refer to Fig. 8-1)

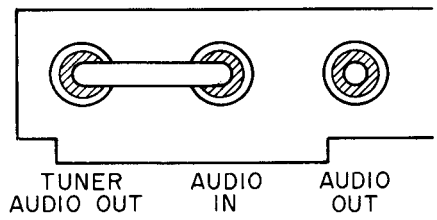


Fig. 8-2. Audio Jack

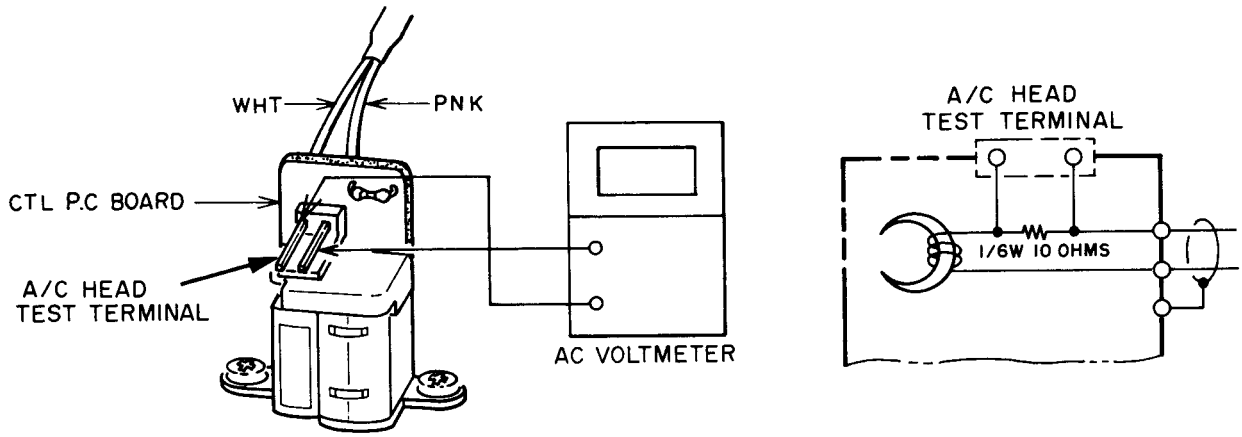
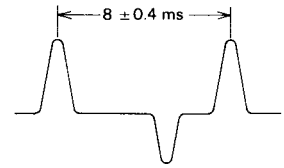
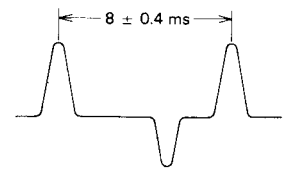
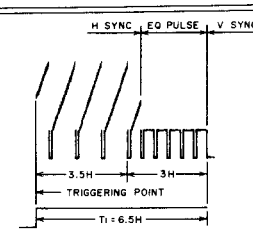
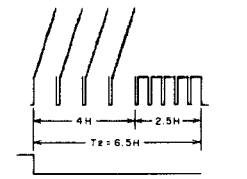
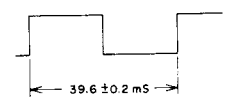
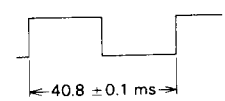


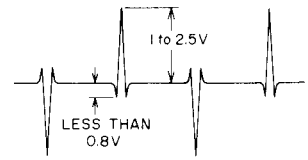
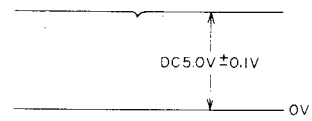
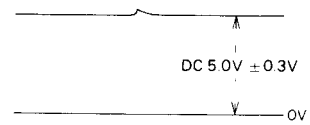
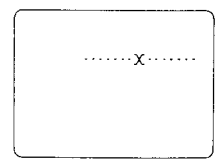
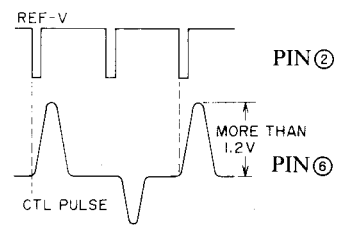
Fig. 8-3. Audio Test Terminal

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
1	PB level	Test Tape (AT-750800)	P.B	Audio Output	VR211	-6.0 ± 1.0 dBm
2	PB Distortion Factor	Test Tape (AT-750800)	P.B	Audio Output	Confirmation	Connect a distortion meter to AUDIO OUT Less than 2.0 %
3	A/C Head Azimuth	Reference Tape (AT-750795)	P.B	Audio Output	A/C Head Adjustment Screw	$-7.0\ ^{+2.0}_{-4.0}$ dBm
4	EE level	Audio Input 1 kHz, -9dBm	EE	Audio Output	VR209	-6.0 ± 1.0 dBm
5	Bias OSC Frequency	No signal Input	REC	Erase Head Terminals (see Fig. 8-3)	OSC Block	1 Connect a Frequency counter to the Erase head terminals 2 Adjust the core of OSC Block, so that the Frequency counter reads 70.0 ± 1.0 kHz
6	Bias voltage	No signal Input	REC	A/C Head Terminals (see Fig. 8-3)	VR208	Connect an AC volt meter to A/C Head terminals AC 3.4 ± 0.2mV
7	REC level	Audio Input 1kHz, -9 dBm	REC	A/C Head Terminals (see Fig. 8-3)	VR210	1 Connect the OSC Block Pin ⑧ to GND. (stop the oscillation) 2 Connect an AC volt meter to A/C Head Terminals A/C 0.22 ±0.01 mV
8	Bias leak	No signal Input	REC	Audio Output	FL202	Minimum output level

Note: For adjustment points refer to Fig. 8-1

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
8	Capstan motor speed at Cue & Review (Quick Finder) Mode	Reference Tape (AT-750795)	Cue (Quick Finder)	TP1 (Pin ⑥)	VR8	 Adjust VR8 so that the CTL pulse waveform is as shown above
			Review (Quick Finder)	TP1 (Pin ⑥)	Confirmation	 Confirm that the CTL pulse waveform is as shown above

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
5	Switching Point	Reference Tape (AT-750795)	PB	TP2 (Video PCB) TP1 (Pin ③) (TP1 for trigger signal)	VR3 VR4	(CH1) TP2 (VIDEO PCB) TP1 Pin ③  (CH-2) TP2 (VIDEO PCB) TP1 Pin ③  Adjust T1 with VR3 to 6.5H and T2 with VR4. The difference between T1 and T2 should be within 0.3H.
6	REC Switching Point	Color Bar from Color Bar Generator	REC	TP2 (Video PCB) TP1 (Pin ③)	VR2	Adjust T1 and T2 waveforms to 6.5H ± 0.3H. As the same manner in step 5.
7	Color phase	Reference Tape (AT-750795)	PB Cue & Review (Quick Finder)	TP1 (Pin ③)	VR6	Cue (Quick Finder) mode  1 At CUE mode, adjust VR6 so that the switching pulse waveform is as shown above. Review (Quick Finder) mode  2 Change to REVIEW mode confirm that the switching pulse waveform is whithin 40.8 ± 0.1ms as shown above. 3 Confirm that color convergence is not appeared around the center (green and magenta) of the Color Bar on the monitor screen.

Step	Adjustment Item	Input	Mode	Test Point	Adjustment Parts	Result & Remarks
1	Drum Motor PG level	Reference Tape (AT-750795)	PB	TP1 (Pin ①)	Confirmation	 Confirm that the PG waveform is within the levels shown above.
2	Drum Motor Normal speed	Reference Tape (AT-750795)	PB	TP1 (Pin ⑤)	VR5	 Adjust so that the drum servo phase error voltage is within DC 5.0V ± 0.1V
3	Capstan Motor Normal speed	Reference Tape (AT-750795)	PB	TP1 (Pin ⑦)	VR1	 Adjust so that the capstan servo phase error voltage is within DC 5.0V ± 0.3V
4	Tracking Preset	Reference Tape (AT-750795)	PB	TP1 (Pin ②) (Pin ⑥)	VR7	 Tracking marker "X" on monitor screen is set to the center of the dotted line by pressing the TRACKING BUTTON on the Front Panel.  Adjust so that the down edge portion of REF-V (Servo standard signal) is lined up with the phase of CTL pulse. At this time, confirm CTL pulse level is more than 1.2V

VIII. ELECTRICAL ADJUSTMENT

8-1. SERVO ADJUSTMENT

SERVO PCB
TEST POINT (TP-1)

PIN NO.	CHECK ITEM
①	DM PG
②	REF-V
③	SW'NG PULSE
④	COLOR PHASE
⑤	DM SPEED
⑥	CTL
⑦	CM SPEED
⑧	GND

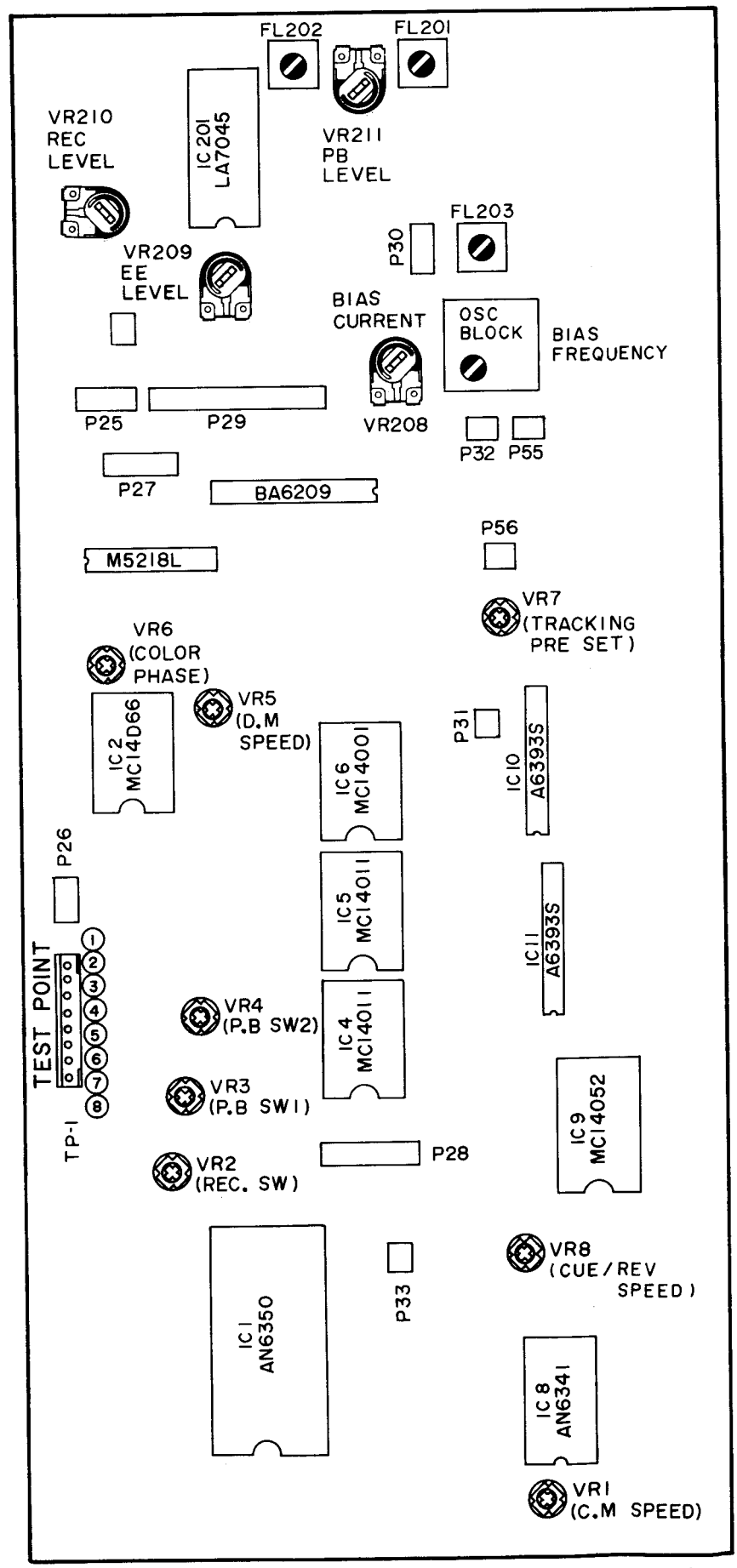


Fig. 8-1 Servo and Audio P.C Board Adjustment points

7-5. CONTROL HEAD POSITION ADJUSTMENT (Refer to Fig. 7-10)

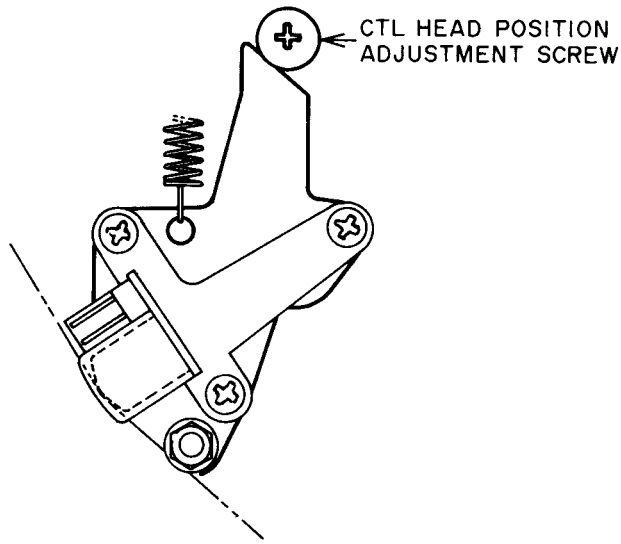


Fig. 7-10

1) Connect an oscilloscope to TP7 (pre-out) of the Video P.C Board.
2) Set the reference tape (AT-750795) and initiate the play mode.
3) While watching the waveform on the oscilloscope, also watching the monitor screen and push the TRACKING button on the front panel.
   Confirm the tracking marker in which direction the maximum point of the waveform is located from the center position.
4) Turn back the tracking marker to the center position, and carry out the following (a) or (b) adjustment.
   (a) If the maximum point of the waveform is reached by moving the tracking marker to Left side from the center position, turn the adjustment screw counterclockwise and make adjustment to maximum point.
   (b) If the maximum point of the waveform is reached by moving tracking marker to Right side from the center position, turn the adjustment screw clockwise and make adjustment to maximum point.

Note: Make these adjustments only after the tape running is completely adjusted.

7-6. ADJUSTMENT OF QUICK FINDER (REVIEW) RUN (Refer to Fig. 7-11, 7-12)

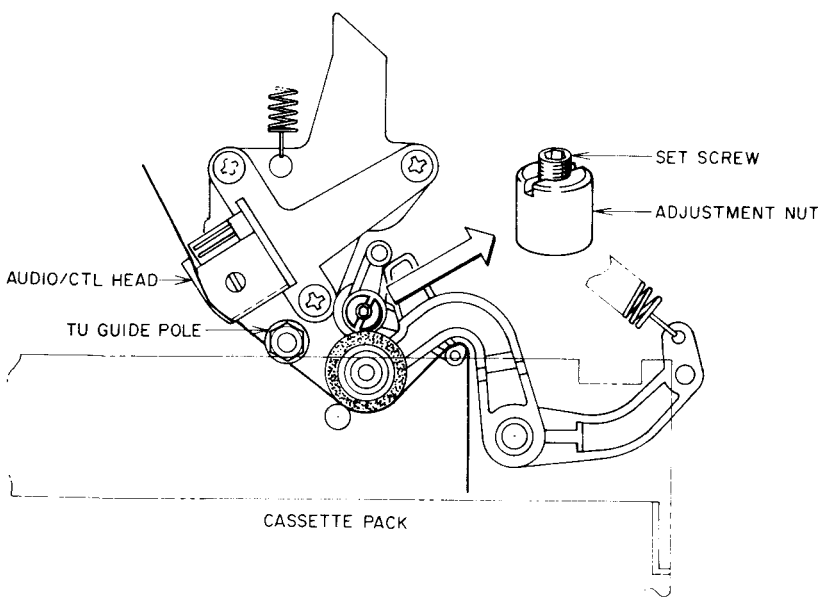


Fig. 7-11

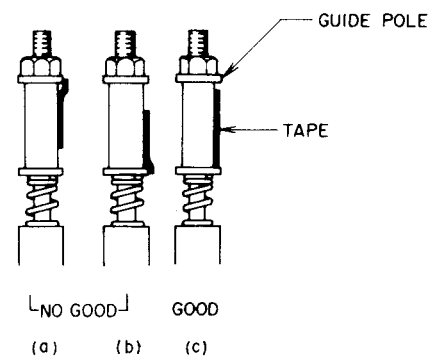


Fig. 7-12

1) Set the recording and playback tape E-240 and wind it up.
2) Press the REVIEW button to initiate the REVIEW mode.
3) Loosen the set screw in Fig. 7-11 so that the adjustment nut can be turned.
4) While watching the tape running on the take-up guide pole, turn the adjustment screw slowly so as to eliminate the curling of the tape (Fig. 7-12 (C)).
5) Tighten the set screw and fix the adjustment screw.
6) After the completion of adjustment, press the STOP button once, and after unloading the tape, recheck the review run.

Note: If the adjustment nut is turned too fast, some deviation may be found after adjustment because the tape running does not follow such a fast pace.

7-4. AUDIO/CONTROL HEAD HEIGHT, TILT AND AZIMUTH ADJUSTMENT
(Refer to Fig. 7-7 to Fig. 7-9)

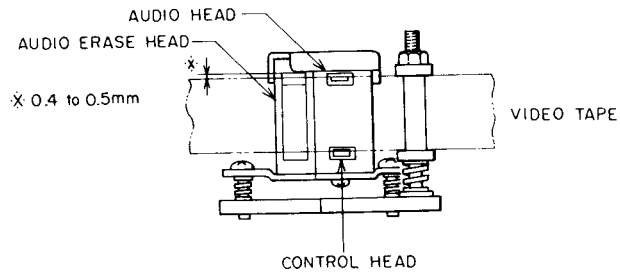


Fig. 7-7

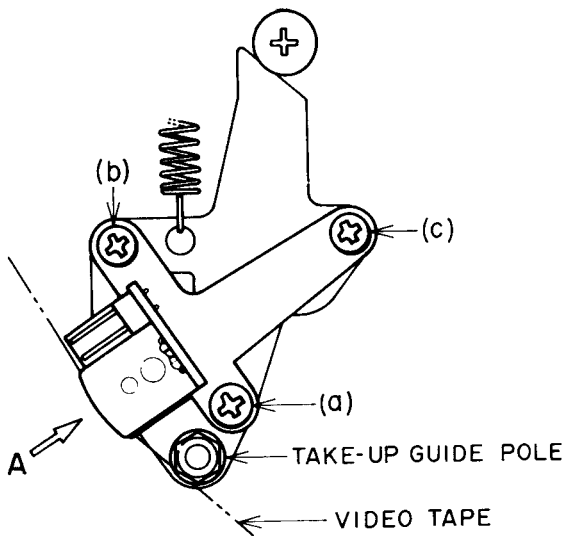


Fig. 7-8

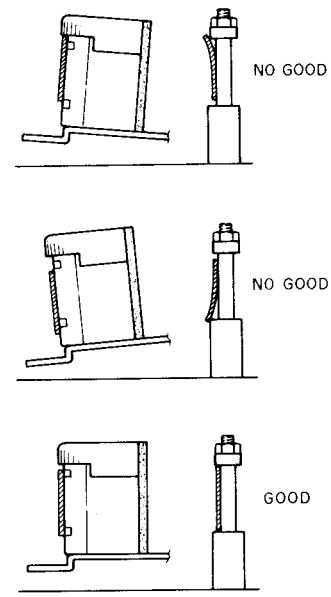


Fig. 7-9

1) Connect an AC Volt Meter to Audio Out.
2) Playback the reference tape (AT-750795).
3) Turn screw (a), (b) and (c) in order slightly but by exactly the same amount. Adjust the audio output level to its maximum. Take screw (a) as your standard and use screw (b) for azimuth adjustment. Adjust screw (c) until there is no tape wrinkle in the guide pole section, the audio output level is at maximum and there is the minimum possible level flucuation.
   Then raise and lower screw (a) very slightly and adjust (b) and (c), and set to the point for maximum output.

Notes: Repeat the adjustment of tape guide height, guide roller height and AUDIO/CTL several times in order to achieve the perfect tape running.

7-3. GUIDE ROLLER HEIGHT ADJUSTMENT (Refer to Fig. 7-3 to Fig. 7-6)

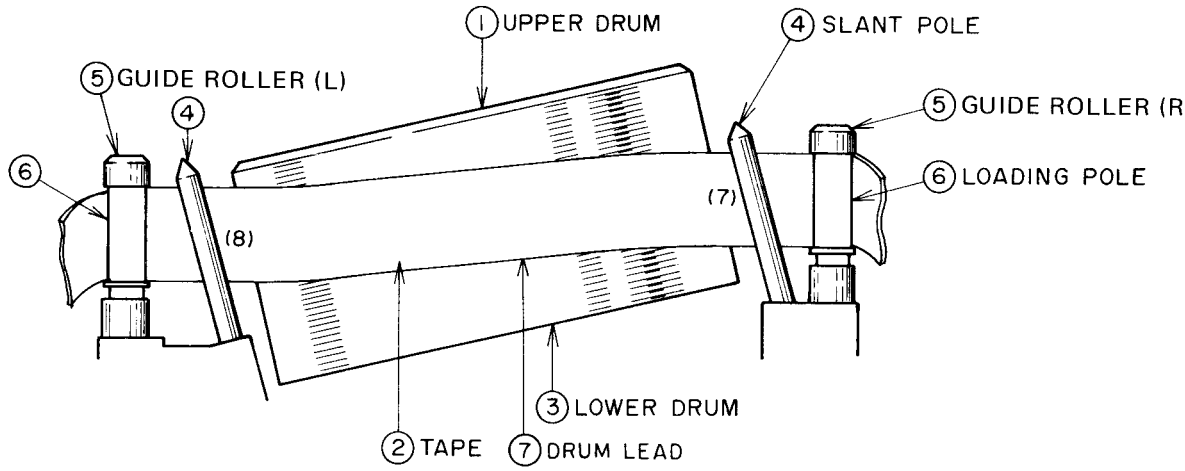


Fig. 7-3

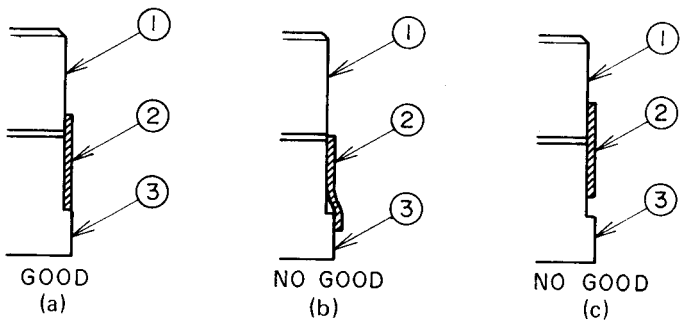


Fig. 7-4

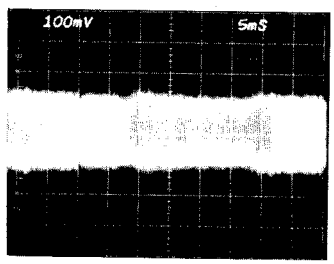


Fig. 7-5

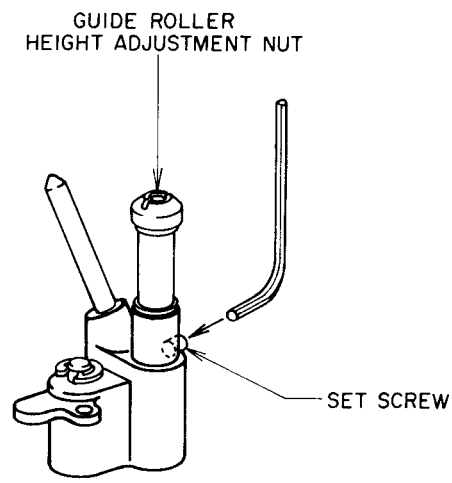


Fig. 7-6

1) Slightly loosen the set screw at the lower part of the guide roller so that the guide roller can be adjusted with reasonable tightness (See Fig. 7-6)
2) Connect an oscilloscope to TP7 PRE OUT (FM envelope out) of the VIDEO P.C Board.
3) Set the reference tape (AT-750795) and achieve PLAY mode.
4) Ensuring it that the oscilloscope shows such a waveform as shown in Fig. 7-5 and also watching the point (7) of Fig. 7-3, adjust the height of the guide roller (R) so that the tape runs without curling as shown in Fig. 7-4 (a).
5) Similarly, adjust the height of the guide roller (L) watching the waveform on the oscilloscope and the point (8) of Fig. 7-3.
6) Make sure that there is no shaking in the picture on the monitor TV.
7) Fix the guide roller with the set screw.

VI. REPLACEMENT OF VIDEO HEAD ASSEMBLY

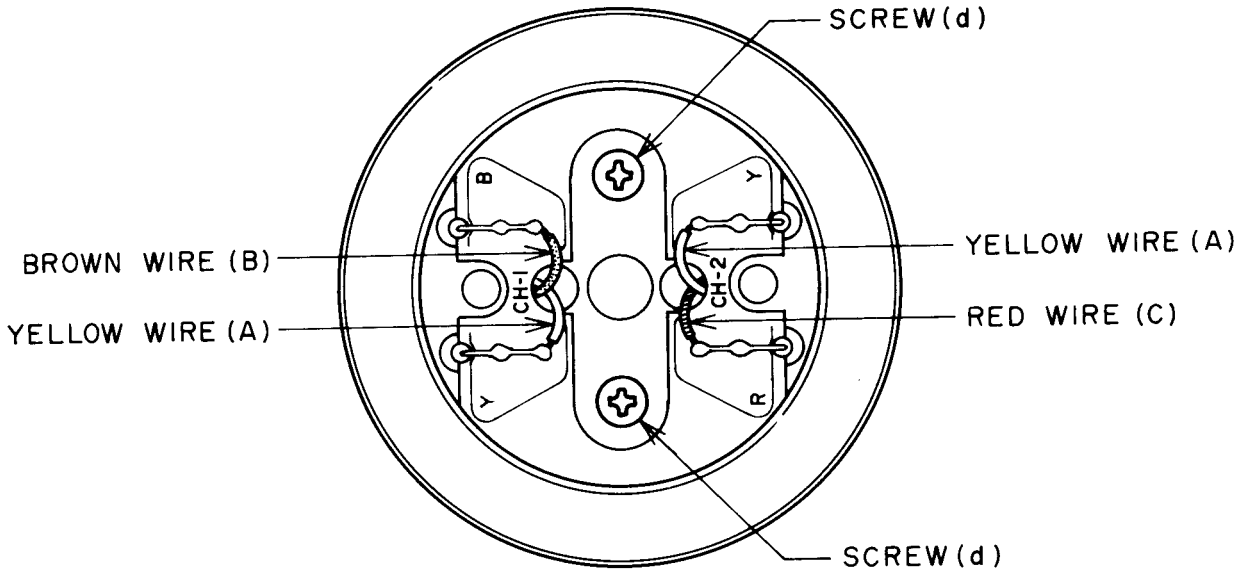


Fig. 6-1

1) Unsolder the wire (A), then unsolder the brown wire (B) and red wire (C).
2) Remove the two screws (d), then pull up the Upper Drum Assembly.
3) Install the new head assembly and solder the wires as shown in Fig. 6-1.
4) Fasten two screws (d).
5) After the replacement, the following adjustments are necessary.
   a) PB Tracking Adjustment (Servo & Audio P.C Board Step 4)
   b) PB Switching Point Adjustment (Servo P.C Board Step 5)
   c) REC Switching Point Adjustment (Servo P.C Board Step 6)
   d) Video Head Q (Quality factor) and resonance Adjustment (Video P.C Board Step 12 & 13)
   e) PB Y Level Adjustment (Video P.C Board Step 15)
   f) PB Chroma Level Adjustment (Video P.C Board Step 18)

VII. TAPE TRANSPORT ADJUSTMENT

7-1. TAPE GUIDE (R) ADJUSTMENT (Refer to Fig. 7-1)

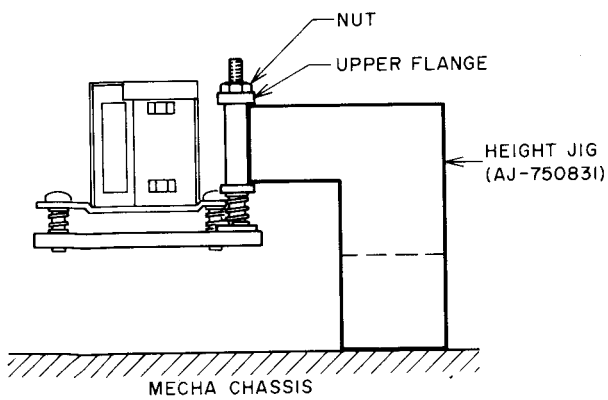


Fig. 7-1

1) Remove the Guide cap.
2) Set the Height Jig (AJ-750831) on the Mecha. chassis as shown in Fig. 7-1 and check the height of the lower face of the upper flange.
   If necessary, carefully adjust by turning the nut.

7-2. SUPPLY TAPE GUIDE (L) ADJUSTMENT (Refer to Fig. 7-2)

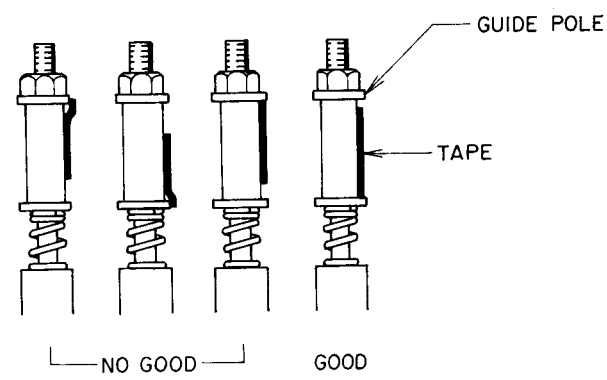


Fig. 7-2

1) Set the cassette tape and achieve PLAY mode.
2) Make adjustment with the supply guide height adjustment nut, so that the lower part of the tape will pass the lower part of the guide pole without curling as shown in Fig. 7-2.

5-2. TENSION LEVER POSITION ADJUSTMENT (Refer to Fig. 5-3)

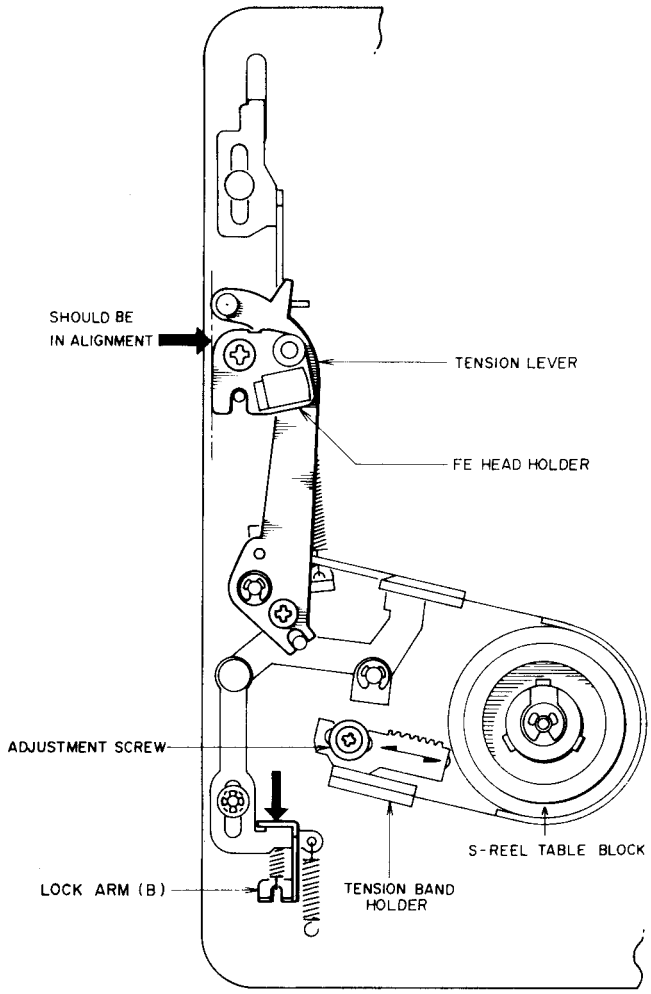


Fig. 5-3

1) Remove the EJECTOR BLOCK from Mech. chassis.
2) Disconnect the 8P connector from EJECTOR BLK and connect a Dummy plug instead of the EJECTOR BLOCK which built at Section 5-1-1.
3) Achieve PLAY mode, and switch "OFF" the power switch on the rear panel and maintain the loading position.
4) Loosen the adjustment screw and adjust the tension band holder so that the tension lever and FE head holder are in alignment as shown in Fig. 5-3, and tighten the adjustment screw.
5) After adjustment, paint-lock the adjustment screw.

5-3. BACK TENSION ADJUSTMENT (Refer to Fig. 5-4)

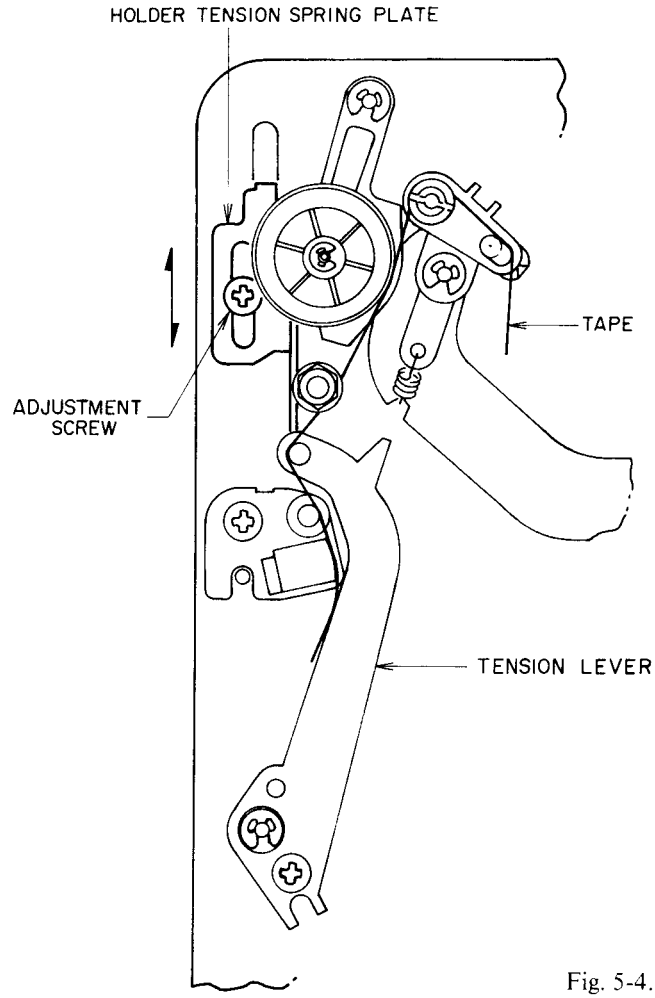


Fig. 5-4.

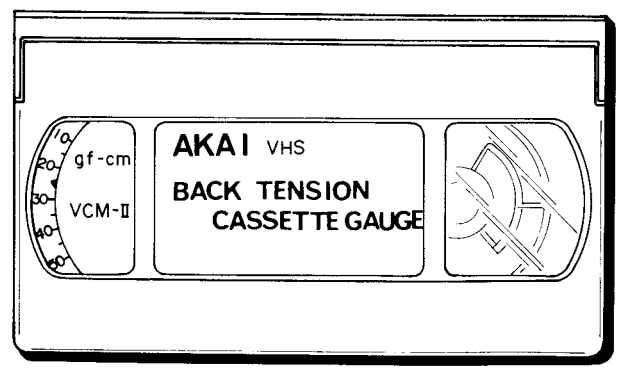


Fig. 5-5. Back Tension Jig. (AJ-751181)

1) Set the Back Tension Jig (AJ-751181) shown in Fig. 5-5, and put some weight on the Back Tention Jig.
2) Achieve PLAY mode.
3) Loosen the adjustment screw shown in Fig. 5-4, adjust the holder tension spring plate so that back tension will be 28 ±5 gf-cm, and tighten the adjustment screw.
4) After adjustment, paint-lock the adjustment screw.

V. MECHANICAL ADJUSTMENT

5-1. BEFORE THE ADJUSTMENT

5-1-1. BUILD A DUMMY CONNECTOR (Refer to Fig. 5-1)

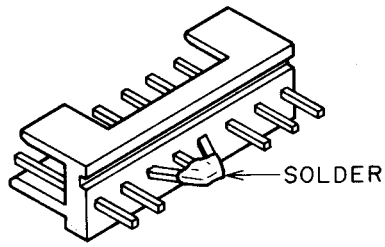


Fig. 5-1 Dummy Connector

Ejector block has to be removed for mechanical adjustments. Consequently, it is necessary to build a dummy connector as shown in Fig. 5-1.
The connector used for this dummy connector is PLUG 8P Connector. (Parts Number EJ-318263)

5-1-2. CONFIRMATION OF REGULATOR OUTPUT VOLTAGE. (Refer to Fig. 5-2 and chart 5-1)

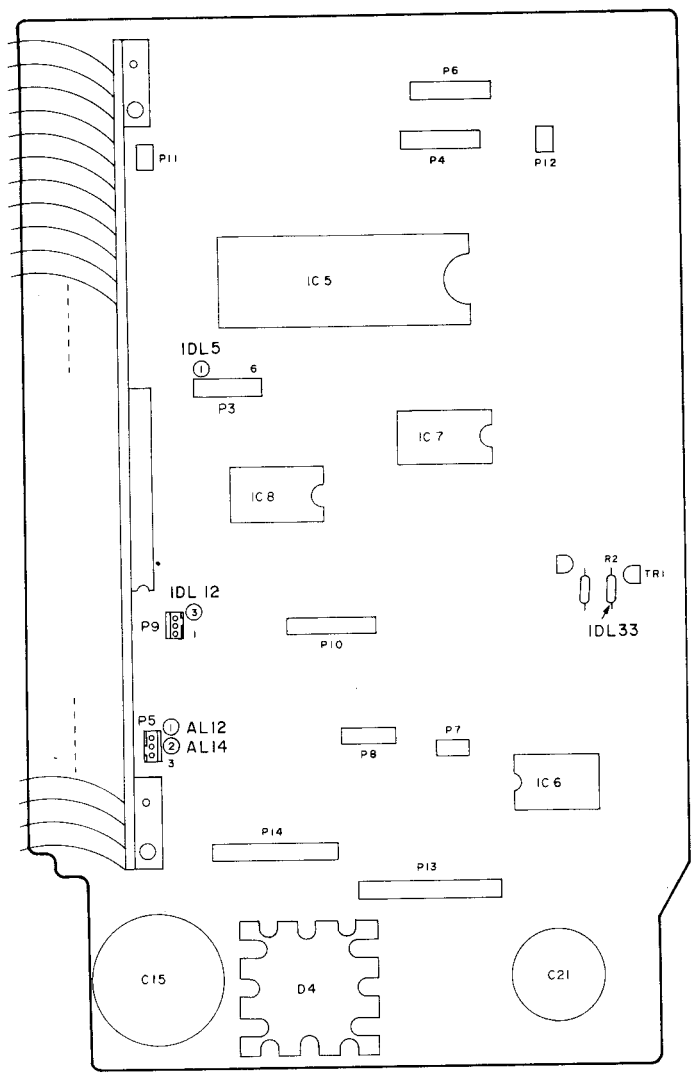


Fig. 5-2 Top View of Power & Syscon P.C Board

Confirm that the voltages measured by digital DC voltmeter at each point are as indicated in chart 5-1.

Check Points	Meter Readings
IDL 5V	5.0 ± 0.25V
IDL 12V	12.0 ± 1.0V
IDL 33V	33.0 ± 2.0V
AL 12V	12.0 ± 0.6V
AL 14V	14.0 ± 0.7V

Chart 5-1

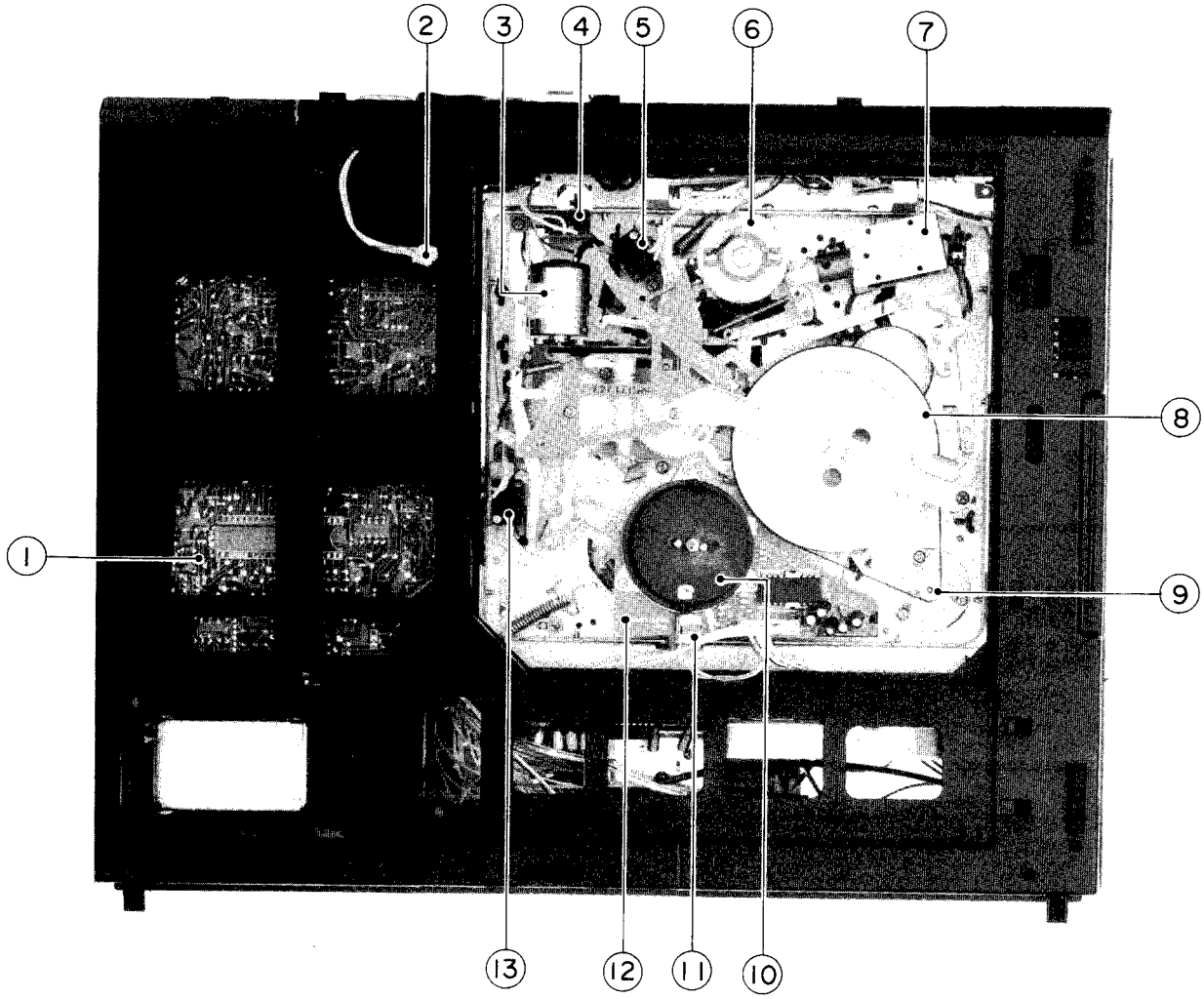


Fig. 4-3. Parts Location (Botton View)

1. POWER SUPPLY & SYSTEM CONTROL P.C BOARD V1017A5030
2. CONNECTOR FOR REMOTE CONTROL UNIT (RC-R4)
3. LOADING MOTOR
4. RECORD SAFETY SWITCH
5. LOADING SWITCH B
6. REEL DRIVE MOTOR
7. PLUNGER
8. CAPSTAN FLYWHEEL
9. CAPSTAN MOTOR
10. DRUM MOTOR
11. DRUM MOTOR PG HEAD
12. DRIVE P.C BOARD M3201C5010
13. LOADING SWITCH A

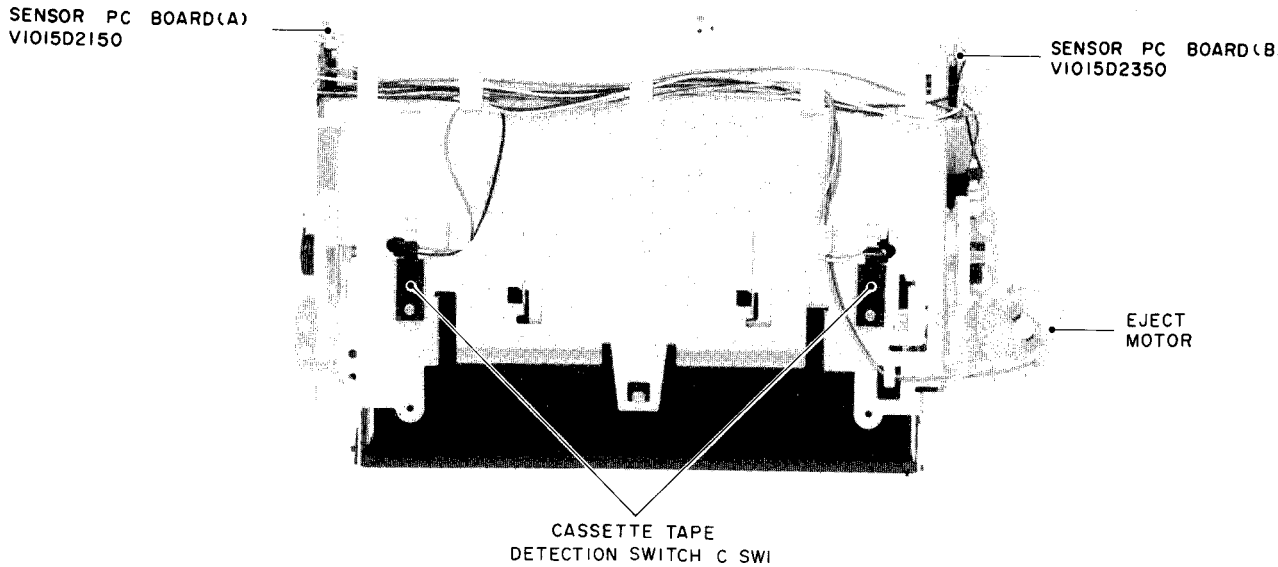


Fig. 4-4. Parts Location (Ejector Block part)

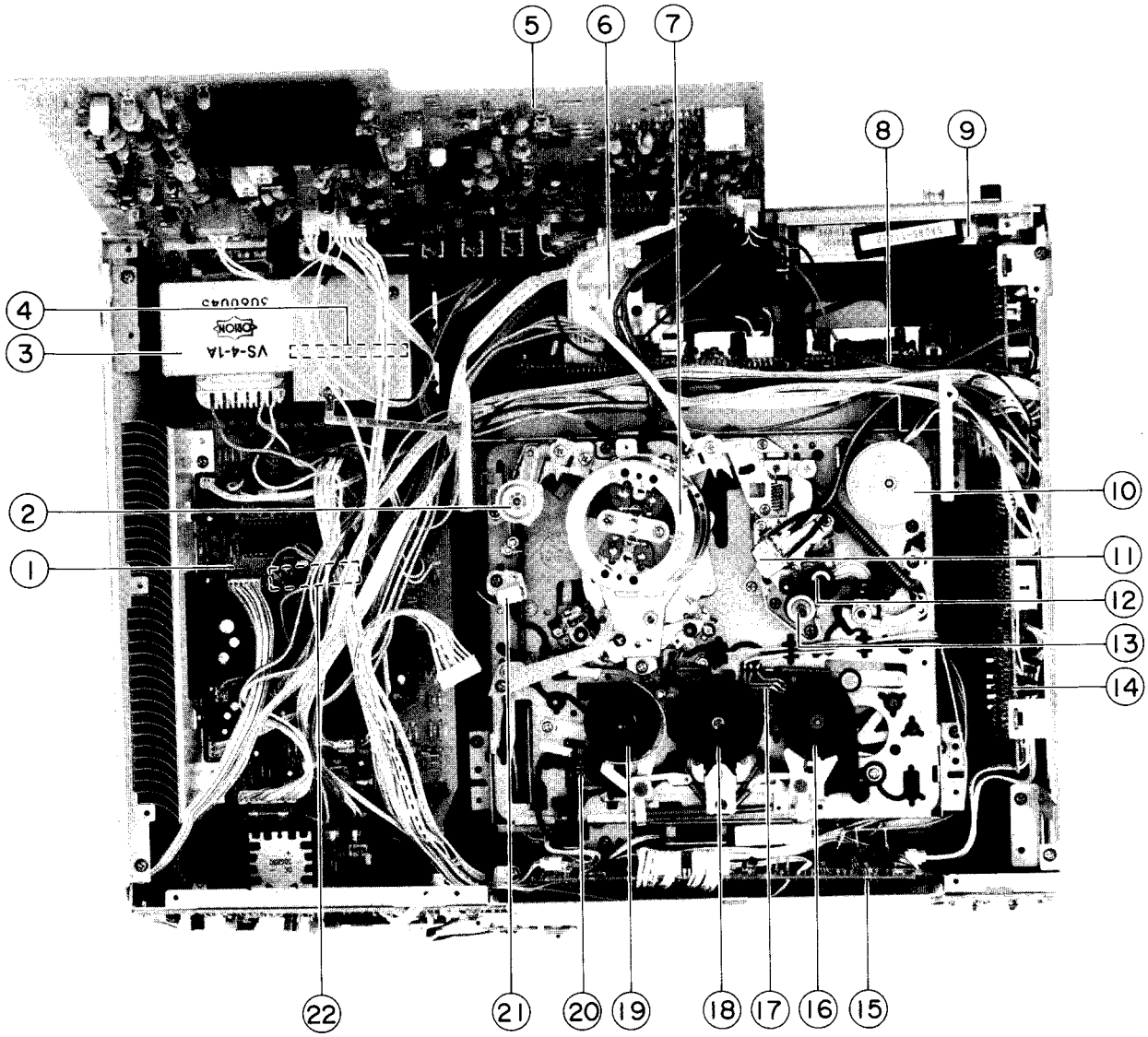


Fig. 4-2. Parts Location (Top View)

1. POWER SUPPLY & SYSTEM CONTROL P.C BOARD V1017A5030
2. IMPEDANCE ROLLER
3. POWER TRANSFORMER
4. POWER FILTER P.C BOARD V1017D5060
5. VIDEO P.C BOARD V1017A5040
6. TV TUNER UNIT.
7. DRUM HEAD BLOCK
8. DEMODULATOR P.C BOARD 6B00159D
9. RF MODULATOR BLOCK
10. CAPSTAN MOTOR
11. AUDIO/CONTROL HEAD
12. PINCH ROLLER
13. CAPSTAN
14. SERVO & AUDIO P.C BOARD V1017A5010
15. MECHA DRIVE P.C BOARD V1015A502A
16. TAKE UP REEL
17. HALL I.C (R) P.C BOARD V1017D5070
18. IDLER ASSY.
19. SUPPLY REEL
20. HALL I.C (L) P.C BOARD V1017D5080
21. FULL ERASE HEAD
22. SLEEP P.C BOARD V1017D5170

IV. PRINCIPAL PARTS LOCATION

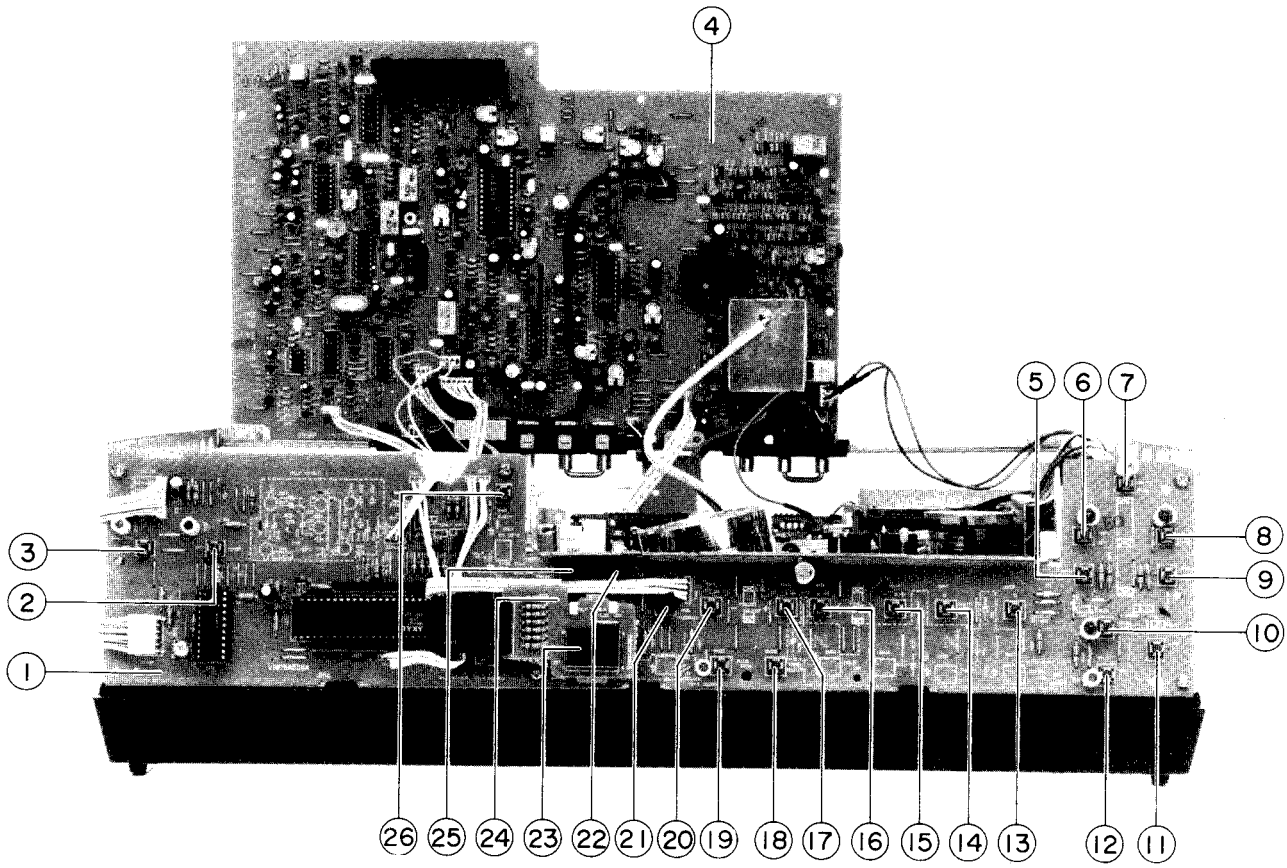


Fig. 4-1. Parts Loacation (Front View)

1. OPERATION P.C BOARD V1015A505A
2. TIMER "ON/OFF" SWITCH SW2
3. FUNCTION "ON/OFF" SWITCH SW1
4. VIDEO P.C BOARD V1017A5040
5. QUICK FINDER REVERSE SWITCH SW16
6. REWIND SWITCH SW14
7. PLAY SWITCH SW13
8. FAST FORWARD SWITCH SW15
9. QUICK FINDER FORWARD SWITCH SW17
10. PAUSE/STILL SWITCH SW18
11. STOP SWITCH SW20
12. REC SWITCH SW19
13. DISPLAY CHANGE SWITCH SW12
14. COUNTER RESET SWITCH SW11
15. FINE/TRACKING [+] SWITCH SW10
16. FINE/TRACKING [−] SWITCH SW9
17. PRESET SELECT [+] SWITCH SW8
18. TAPE SELECT SWITCH SW23
19. AUTO "O" STOP SWITCH SW22
20. PRESET SELECT [−] SWITCH SW7
21. PROGRAM SWITCH SW6
22. CLOCK SET SWITCH SW5
23. PRESET STATION INDICATOR DISPLAY
24. LED P.C BOARD V1015A505B
25. PRESET SWITCH SW4
26. EJECT SWITCH SW3

III. CONTROLS

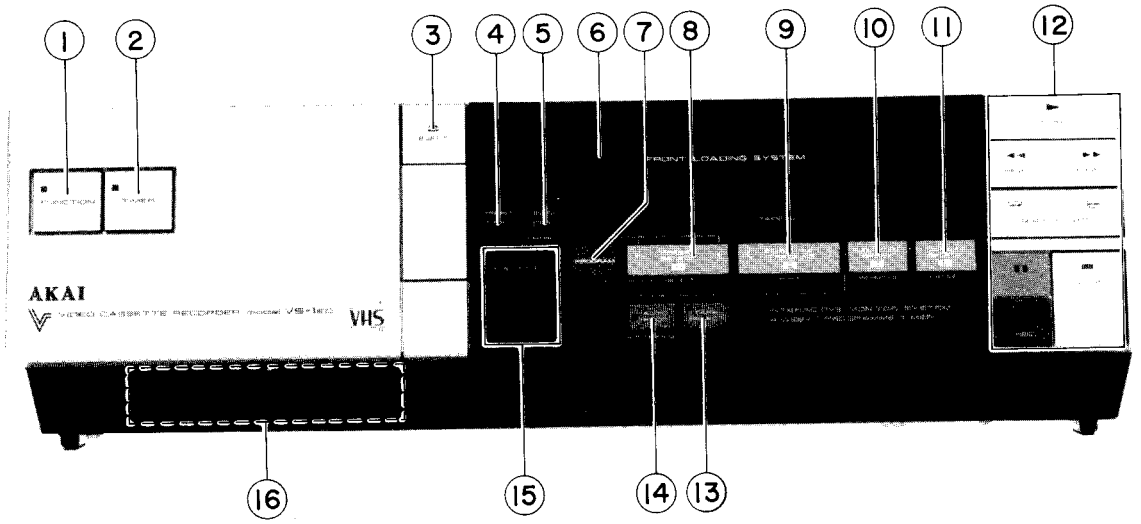


Fig. 3-1. Front View

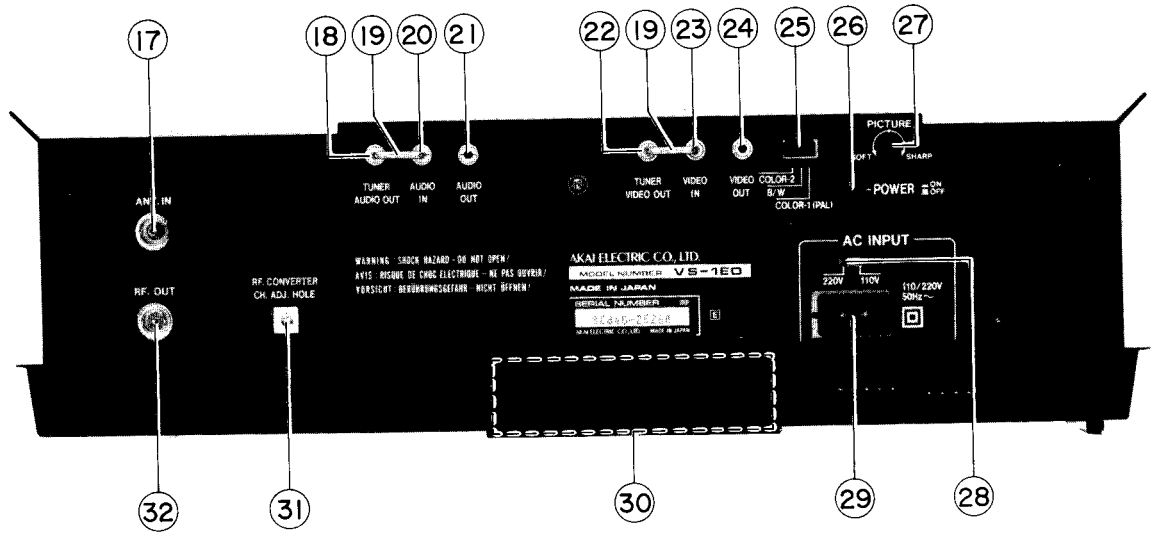


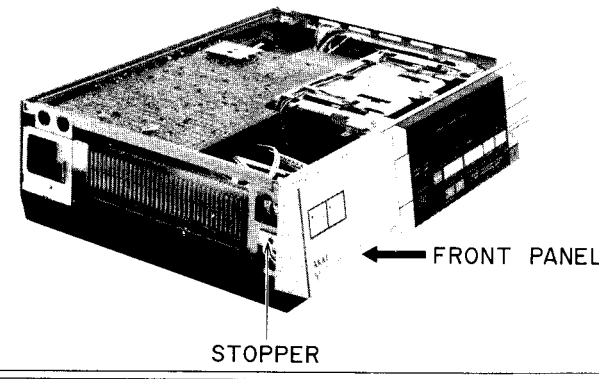
Fig. 3-2. Rear View

1. FUNCTION "ON/OFF" BUTTON
2. TIMER "ON/OFF" BUTTON
3. EJECT BUTTON
4. PRESET BUTTON (TO TUNE IN TV STATION)
5. CLOCK BUTTON (TO SET THE ACTUAL TIME AND DATE)
6. LOADING COVER
7. PROGRAM BUTTON (TO AUTOMATICALLY RECORD A TV PROGRAM)
8. PRESET SELECT [A] BUTTON
9. FINE TUNE/TRACKING [B] BUTTON
10. COUNTER RESET [C] BUTTON
11. DISPLAY SELECT [D] BUTTON
12. TAPE TRANSPORTING BUTTON
    PLAY (▶ PLAY), REWIND & FAST FORWARD (◀◀ REW, ▶▶ F FWD), QUICK FINDER REVERSE & QUICK FINDER FORWARD ([◀◀] QUICK FINDER [▶▶]), PAUSE (❚❚ PAUSE), RECORDING (● REC), STOP (■ STOP)
13. TAPE SELECT BUTTON
14. COUNTER AUTO ("0") STOP BUTTON
15. PRESET STATION DISPLAY
16. COMPARTMENT FOR THE REMOTE-CONTROL UNIT (RC-R4)
17. ANTENNA (ANT.) IN JACK
18. TUNER AUDIO OUTPUT JACK
19. SHORT PIN
20. AUDIO INPUT JACK
21. AUDIO OUTPUT JACK
22. TUNER VIDEO OUTPUT JACK
23. VIDEO INPUT JACK
24. VIDEO OUTPUT JACK
25. VIDEO MODE SELECTOR
26. POWER ON/OFF SWITCH
27. PICTURE CONTROL KNOB
28. AC INPUT SELECTOR
29. AC INLET
30. COMPARTMENT FOR THE BACK UP BATTERY
31. RF CONVERTER CHANNEL (CH.) ADJUSTMENT (ADJ.) HOLE
32. RF OUT JACK

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs.
Reassemble in reverse order.

5



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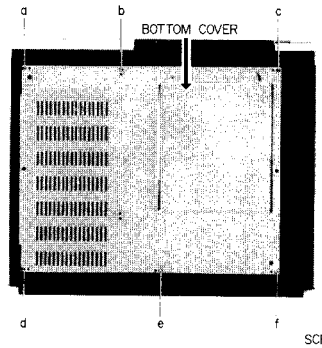

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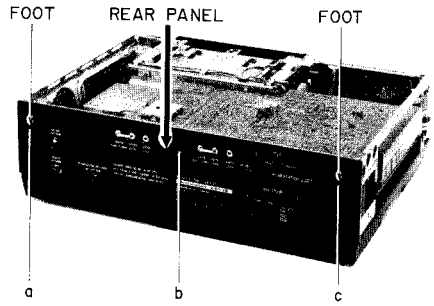

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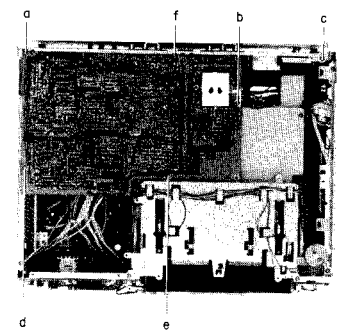

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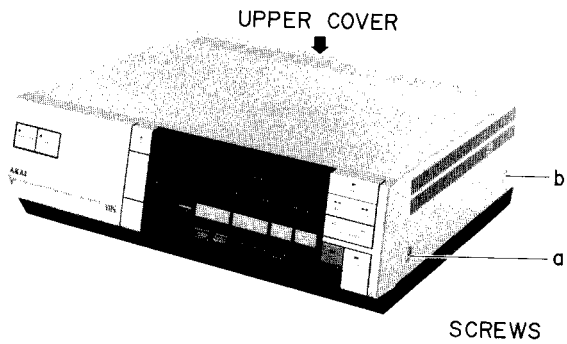

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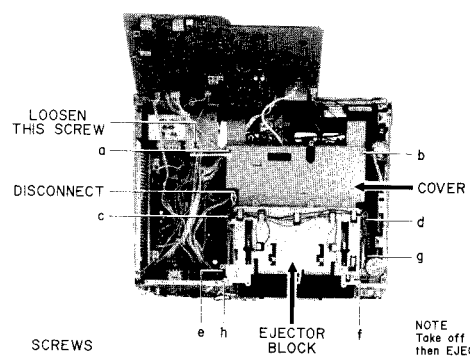

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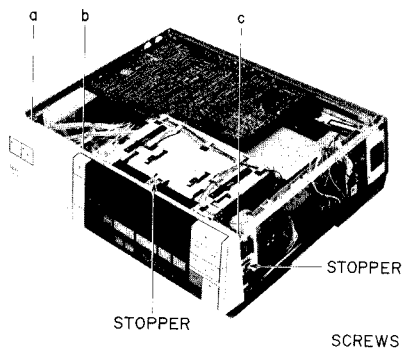

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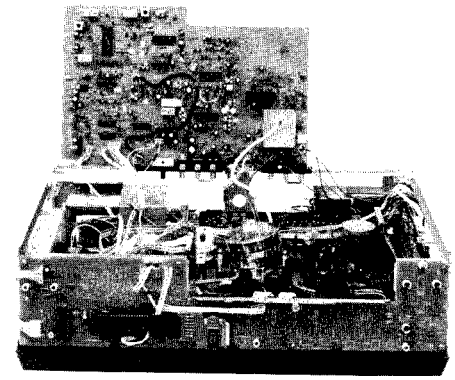

I. SPECIFICATIONS

Format		VHS standard
Video recording system		Rotary, slant azimuth two-head helical scan system.
Recording/playback time		240 min. with E-240 cassette
Tape speed		23.39 mm/sec.
Quick finder		Approx. 5 times normal speed (Noise bars not fixed)
FF, REW time		Approx. 4 min. with E-240 cassette
RF input	VS-1EG/EG-G	System B, G (PAL, SECAM) VHF CH 2 to 12, UHF CH 21 to 69
	VS-1EK	System I (PAL SECAM) UHF CH 21 to 69
	VS-1EO	System B, G (PAL, SECAM) VHF Low CH 2 to 4, S1 to S3 VHF High CH M1 to M10, 5 to 12, U1 to U10 UHF CH 21 to 69
RF output	VS-1EG/EO/EG-G	System B type modulation UHF CH 30 – 39 adjustable (preset CH 36)
	VS-1EK	System I type modulation UHF CH 30 – 39 adjustable (preset CH 36)
Recording (Line input)		PAL, System B, G, I
Playback (Line output)		PAL, System B, G, I
Video Line input level Line output level S/N Horizontal resolution		 0.5 – 2.0 Vp-p/75 ohms, unbalanced 1.0 Vp-p/75 ohms, unbalanced More than 43 dB More than 250 lines
Audio Line input level Line output level S/N Frequency response		 –9 dBs/50 kohms, unbalanced –6 dBs/1 kohms, unbalanced More than 40 dB 70 Hz to 8 kHz
Timer Programs Clock reference		 One-time programs with 4-weeks capacity 1 program for automatic turn-off (Sleep program) Quarts crystal
Display		TV screen (Tape counter, Timer etc.)
Power requirements		110/220V AC, 50/60 Hz (VS-1EG/EO/EG-G) 200/240V AC, 50/60 Hz (VS-1EK)
Operating temperature		5°C to 40°C
Dimensions		440 (W) × 135 (H) × 363 (D) mm (17.3 × 5.3 × 14.3 inches)
Weight		10.5 kg (23.1 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

SECTION 2

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

Final notes
Dernièves observation

Power failure
When a power failure occurs, the Akai VS-1 will stop keeping time. When power is resumed, the Akai VS-1 will again start keeping time. To warn you that the time is slow, the information for setting the timer to the actual time will be displayed on the TV screen when the Akai VS-1 is turned on. In that case, reset the timer following the procedure on page 11.

Memory back up
There is a rechargeable battery pack inside the Akai VS-1 for the station and program memories. The memories are retained even during a power failure. The memory back-up battery pack is recharged as long as the rear panel POWER switch is set to ON. It takes about two days to fully recharge the battery pack which will then supply power for about three days.

Note
When the power is cut off for three days or more, confirm the actual time, the preset channels and the programs. If the indication is wrong or if error is indicated, reset all the preset information again, starting with the actual time.

Maintenance
When a dirty tape is used, dirt will accumulate on the video heads. This will cause disturbances on the TV screen which cannot be eliminated with the Akai VS-1's tracking or the TV's fine tuning control. If this should occur, the heads as well as other internal parts must be cleaned. As the equipment is a finely precisioned instrument, never open the equipment yourself. Take it to a qualified service shop or to an authorized Akai Service Station to be cleaned.
* Akai does not recommend the use of cleaning tape.

Should a problem persist, write down the model and serial numbers and all pertinent data regarding warranty coverage as well as a clear description of the existing trouble and contact your nearest authorized Akai Service Station or the Service Department of Akai Electric Company, Tokyo, Japan.

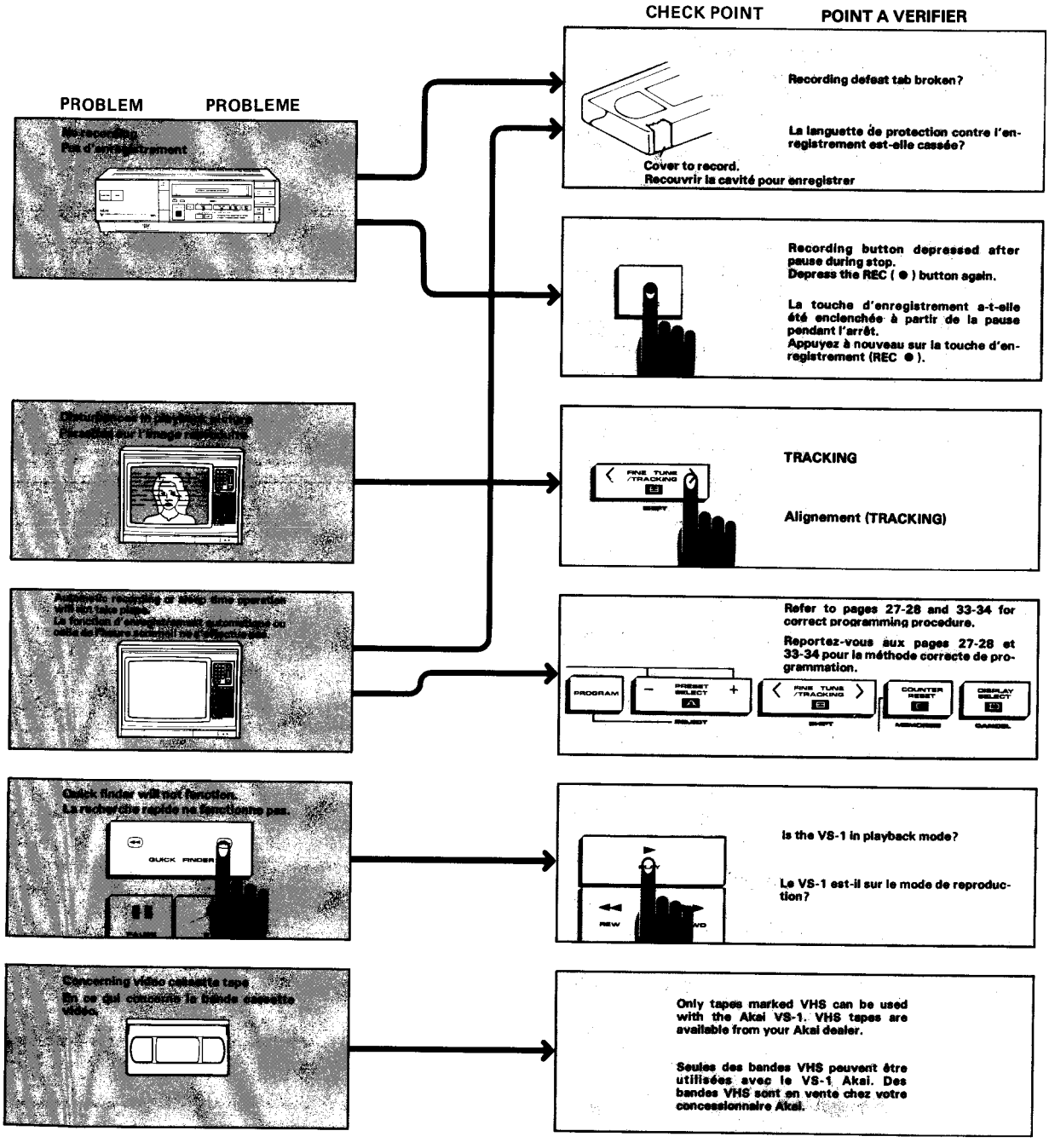
Panne de courant
Lorsqu'une panne de courant se produit, l'horloge du VS-1 Akai s'arrêtera de fonctionner. Lorsque le courant est réappliqué, elle recommencera à fonctionner. Pour avertir que la minuterie retarde, l'affichage pour le réglage de la minuterie à l'heure réelle sera indiqué sur l'écran de télévision lorsque le VS-1 Akai est mis sous tension. Dans ce cas, réinitialisez la minuterie conformément au procédé de la page 11.

Soutien de la mémoire
Il y a un batterie rechargeable à l'intérieur du VS-1 Akai pour les mémoires de station et de programme. Les mémoires sont conservées même pendant une panne de courant. La batterie rechargeable de soutien de la mémoire est rechargée aussi longtemps que le commutateur d'alimentation (POWER) situé sur le panneau arrière est réglé sur marche (ON). Il faut environ deux jours pour recharger entièrement la batterie qui fournira alors une alimentation pendant environ trois jours.

REMARQUE
Lorsque l'alimentation est coupée pendant trois jours ou plus, vérifiez l'heure réelle, les stations préréglées et les programmes. Si l'indication est erronée ou si "erreur" est indiqué, réinitialisez toutes les données préréglées, en commençant avec l'heure réelle.

ENTRETIEN
Lorsqu'une bande sale est utilisée, des saletés s'accumuleront sur les têtes vidéo. Ceci provoquera des parasites sur l'écran de télévision, parasites qui ne peuvent pas être éliminés avec la commande d'accord fin du téléviseur ou celle de réglage de l'alignement du VS-1 Akai. Dans le cas où cela se produit, les têtes ainsi que les autres pièces internes doivent être nettoyées. Cet appareil étant un équipement de précision, n'essayez jamais de l'ouvrir vous-même. Emmenez-le dans un magasin de réparation qualifié ou chez un concessionnaire Akai afin qu'il soit nettoyé.
* Akai ne recommande pas l'utilisation d'une bande nettoyante.

En cas de problèmes avec votre appareil, notez les numéros de série et du modèle et toutes les données pertinentes concernant l'étendue de la garantie ainsi qu'une description claire du problème existant et prenez contact avec une station service Akai agréée ou la section de service après-vente de la société Akai Electric Company, Tokyo, Japon.


CHECK POINT
POINT A VERIFIER
PROBLEM
PROBLEME
Recording defeat tab broken?
La languette de protection contre l'enregistrement est-elle cassée?
Cover to record.
Recouvrir la cavité pour enregistrer
Recording button depressed after pause during stop.
Depress the REC (●) button again.
La touche d'enregistrement a-t-elle été enclenchée à partir de la pause pendant l'arrêt.
Appuyez à nouveau sur la touche d'enregistrement (REC ●).
TRACKING
Alignement (TRACKING)
Refer to pages 27-28 and 33-34 for correct programming procedure.
Reportez-vous aux pages 27-28 et 33-34 pour la méthode correcte de programmation.
PROGRAM
PRESET SELECT
FINE TUNE /TRACKING
COUNTER RESET
DISPLAY SELECT
Quick finder will not function.
La recherche rapide ne fonctionne pas.
QUICK FINDER
Is the VS-1 in playback mode?
Le VS-1 est-il sur le mode de reproduction?
REW
Only tapes marked VHS can be used with the Akai VS-1. VHS tapes are available from your Akai dealer.
Seules des bandes VHS peuvent être utilisées avec le VS-1 Akai. Des bandes VHS sont en vente chez votre concessionnaire Akai.

Problem? Let's check
Des problèmes? Vérifiez

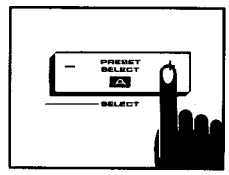
PROBLEM / PROBLEME	CHECK POINT / POINT A VERIFIER
No power. Pas d'alimentation	Power cord plugged in? Le cordon secteur est-il branché?
	Power switch set to ON? Le commutateur d'alimentation (POWER) est-il sous tension (ON)?
EJECT button will not function. La touche d'éjection (EJECT) ne fonctionne pas.	FUNCTION button turned on? La touche de fonction (FUNCTION) est-elle sous tension (ON)?
No picture or display Pas d'image ou d'affichage	TV set to video channel? Le téléviseur est-il réglé sur le canal vidéo?
	Aerial cable connection correct? La connexion du câble d'antenne est-elle correcte?
Tape stops during rewind. La bande s'arrête pendant le rembobinage.	AUTO STOP (COUNTER "0") button off? La touche d'arrêt automatique "0" [AUTO STOP (COUNTER "0")] est-elle hors circuit?
Cannot operate with the remote control unit. Fonctionnement impossible par télécommande	Power switch set to ON? Le commutateur d'alimentation (POWER) est-il sous tension?
	Replace the batteries for the remote control units. Remplacez les piles de l'unité de télécommande.

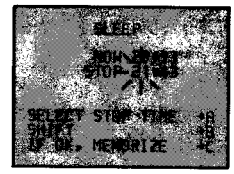
automatically at a programmed time
se mette automatiquement hors circuit à une heure programmée

3 STOP TIME HOURS

To follow the instruction "SELECT STOP TIME → A", depress the -⏭+ button to select the stop time hours.

0, 1, 2, ... up to 23





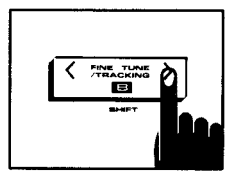
3 HEURES DE L'HEURE D'ARRET

Suivant l'instruction "SELECT STOP TIME → A", appuyez sur la touche -⏭+ pour sélectionner les heures de l'heure de mise hors circuit.

0, 1, 2, ... Jusqu'à 23

4

To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: stop time minutes.



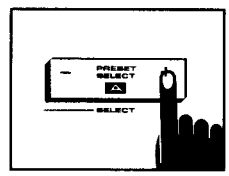
4

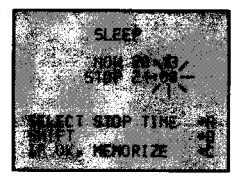
Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: les minutes de l'heure de mise hors circuit.

5 STOP TIME MINUTES

To follow the instruction "SELECT STOP TIME → A", depress the -⏭+ button to select the stop time minutes.

00, 01, 02, ... up to 59





5 MINUTES DE L'HEURE D'ARRET

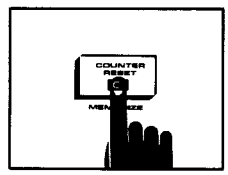
Suivant l'instruction "SELECT STOP TIME → A", appuyez sur la touche -⏭+ pour sélectionner les minutes de l'heure de mise hors circuit.

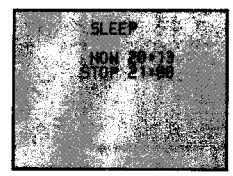
00, 01, 02, ... Jusqu'à 59

6 MEMORIZE

The procedure is now finished.
To follow the instruction "IF OK, MEMORIZE → C", depress the C button to memorize the sleep time.
The TIMER button's indicator will light in addition to the FUNCTION button indicator. Only the TIMER and FUNCTION buttons will operate when depressed.
* Don't forget to turn off the TV.
The Akai VS-1 will stop recording and turn itself off at the programmed sleep time.

After sleep time operation, depress the TIMER button. The indicator will go off. To operate the Akai VS-1 again, depress the FUNCTION button. Its indicator will turn on.





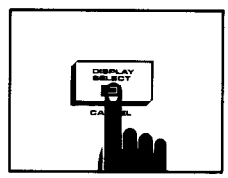
6 MEMORISATION

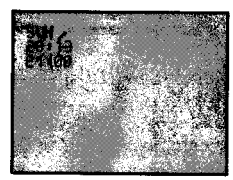
La programmation est maintenant terminée.
Suivant l'instruction "IF OK, MEMORIZE → C", appuyez sur la touche C pour mémoriser l'heure sommeil.
L'indicateur de la touche minuterie (TIMER) s'allumera en plus de l'indicateur de la touche de fonction (FUNCTION). Seules les touches minuterie et fonction seront opératives lorsqu'elles sont en clenchées.
* N'oubliez pas de mettre le téléviseur hors circuit.
Le VS-1 Akai arrêtera l'enregistrement et se mettra hors circuit à l'heure sommeil programmée.

Après la fonction heure sommeil, appuyez sur la touche minuterie (TIMER). L'indicateur s'éteindra. Pour utiliser à nouveau le VS-1 Akai, appuyez sur la touche fonction (FUNCTION). Son indicateur s'allumera.

For instant confirmation of sleep time

Repeatedly depress the D button until a display with the day of the week and the actual time is shown on the TV screen and then confirm the sleep time.
By depressing the C button a few seconds later, the sleep time will be shown below the actual time.





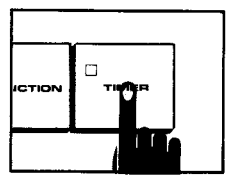
Pour une vérification instantanée de l'heure sommeil

appuyez de façon répétée sur la touche D jusqu'a ce qu'un affichage contenant le jour de la semaine et l'heure réelle soit obtenu sur l'écran de télévision, puis vérifiez l'heure sommeil. En appuyan sur la touche C quelques secondes plus tard, l'heure sommeil sera indiquée sous l'heure réelle.

To cancel sleep time operation

Depress the TIMER button. Its indicator will go off and the sleep time operation will be canceled. The Akai VS-1 will goes into normal recording mode.

NOTE:
If the tape ends before the programmed sleep time, the tape will rewind to the beginning and stop. When the tape has stopped, sleep time operation will be canceled but the Akai VS-1 will not turn itself off. Therefore make sure that the length of the tape is longer than the sleep time.

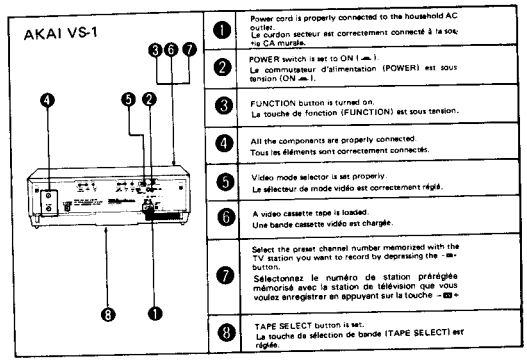


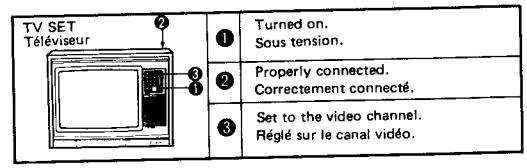
Pour annuler la fonction heure sommeil

Appuyez sur la touche minuteie (TIMER). Son indicateur s'éteindra et la fonction heure sommeil sera annulée. Le VS-1 Akai se mettra, sur le mode d'enregistrement normal.

REMARQUE:
Si la bande se termine avant la fin de l'heure sommeil programmée, elle se rembobine jusqu'à son début et s'arrête. Lorsque la bande s'est arrêtée, la fonction heure sommeil sera annulée, et le VS-1 Akai ne se mettra pas hors circuit. Il faut donc vous assurer que la longueur de la bande est suffisante pour la durée de l'heure sommeil.

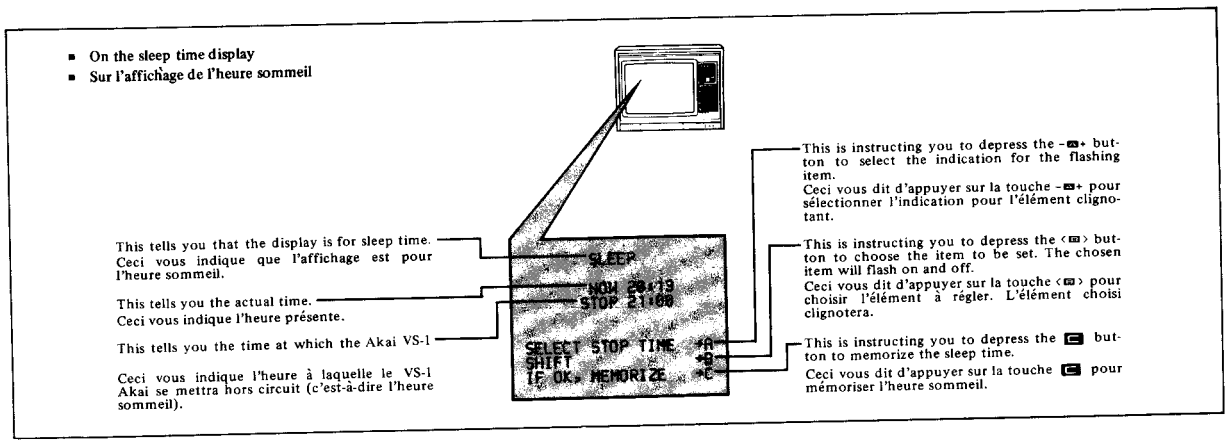
Let's make the Akai VS-1 stop recording and turn itself off
Réglage du VS-1 Akai pour qu'il arrête l'enregistrement et

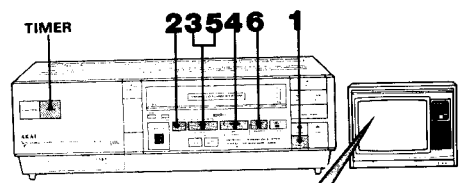




The Akai VS-1 can be set to stop recording and turn itself off automatically when you have to leave before the program you are recording is finished. We call this turn-off time "sleep time".

Le VS-1 Akai peut être réglé pour arrêter l'enregistrement et se mettre automatiquement hors circuit lorsque vous devez partir avant que l'émission que vous êtes en train d'enregistrer soit finie. Nous appelons cette heure de mise hors circuit "heure sommeil".

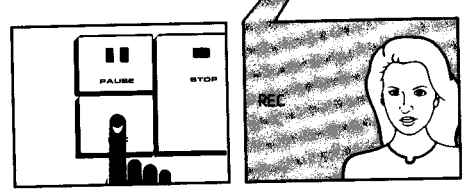




How to set sleep time

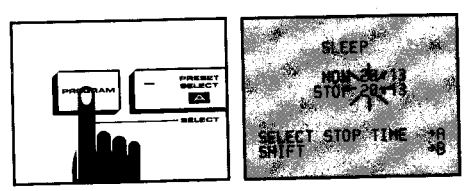
1

Depress the REC (●) button for at least 1 second to begin recording a TV program.
* "REC" will be displayed on your TV screen for 3 seconds.



2

Depress the PROGRAM button to display the information for setting the sleep time on your TV screen.



Comment régler l'heure sommeil

1

Appuyez pendant au moins 1 seconde sur la touche d'enregistrement (REC ●) pour enregistrer une émission de télévision.
* "REC" sera affiché pendant 3 secondes sur votre écran de télévision.

2

Appuyez sur la touche PROGRAM pour afficher les informations pour le réglage de l'heure sommeil.

An example of 4-week timer setting
Un exemple de reglage de minuterie pour 4 semaines

"4-week" pre-setting means that you can "reserve" recording time on any one of 28 days in advance-including the day of setting. This means that beginning with today, you can pre-program your Akai VS-1 to automatically record at any time on any day for 28 days.

For example, let's say that today is Monday SEP. 5th and you wish to preset a recording time for later on tonight. Then set the week and day for "1st Monday" which will mean today (SEP. 5th). So now it follows that if you want to pre-set time for next Monday (SEP. 12th), you will set the week and day for "2nd Monday" and so on for "3rd Monday" (SEP. 19th) and "4th Monday" (SEP. 26th). The same thing applies to the other days of the week.

Now let's say its Tuesday SEP. 6th at 9:00 PM and you want to pre-set recording time for 8:00 PM the following Tuesday (SEP. 13th). Since it is already past 8:00 PM today (SEP. 6th) when you are doing the setting, you must set the week and day for "1st Tuesday" since the 1st Tuesday you can record at 8:00 PM is now next week (SEP. 13th). In other words, "1st Tuesday" means the first Tuesday you can record at the time desired. The same thing applies to the other days of the week.

NOTE:
The real time counter in the Akai VS-1, uses a 24 hour notation system following the example:

1:00 AM = 1:00
12:00 PM = 12:00
1:00 PM = 13:00
2:00 PM = 14:00
12:00 AM = 0:00

SEPTEMBER
SEPTEMBRE

SUN DIM	MON LUN	TUE MAR	WED MER	THU JEU	FRI VEN	SAT SAM
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER
OCTOBRE

						1
2	3	4	5	6	7	8

Une capacité de préréglage de "4 semaines" signifie qu'il vous est possible de "réserver" à l'avance l'heure d'enregistrement pour n'importe lequel de 28 jours, y compris le jour de réglage. Ceci signifie, qu'à partir d'aujourd'hui, vous pouvez préprogrammer votre VS-1 Akai pour qu'il effectue automatiquement un enregistrement à n'importe quelle heure, n'importe quel jour, sur 28 jours.

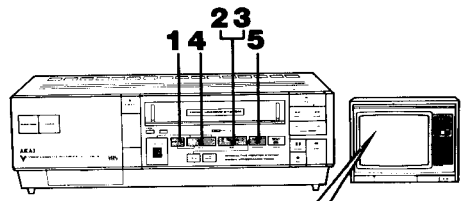
Par exemple, supposons qu'aujourd'hui soit le lundi 5 Septembre et que vous désirez prérégler une heure d'enregistrement pour ce même soir, plus tard. Vous devez alors régler la semaine et le jour sur 1er lundi "1st Monday", ce qui signifie aujourd'hui 5 Septembre. Il s'ensuit donc que si vous voulez prérégler un enregistrement pour lundi prochain (12 Sept.), vous devez alors régler la semaine et le jour sur 2ème lundi "2nd Monday"; de même pour 3ème lundi "3rd Monday" (19 Sept.) et 4ème lundi "4th Monday" (26 Sept.). La même chose s'applique aux autres jours de la semaine.

Supposons maintenant que nous soyons le mardi 6 Septembre à 21 heures et que vous désirez prérégler une heure d'enregistrement pour 20 heures (8:00 PM) le mardi suivant (13 Sept.). Puisqu'il est déjà plus de 20 heures aujourd'hui (6 Sept.) lorsque vous allez effectuer le réglage, vous devez régler la semaine et le jour sur 1er mardi "1st Tuesday" puisque le 1er mardi où il est possible de faire un enregistrement à 20 heures (8:00 PM) est la semaine suivante (13 Sept.). En d'autres mots, 1er mardi "1st Tuesday" signifie le premier mardi où vous pouvez enregistrer à l'heure désirée. La même chose s'applique aux autres jours de la semaine.

REMARQUE:
Le compteur en temps réel du VS-1 Akai utilise un système de notation par 24 heures comme dans l'exemple suivant:

1:00 AM = 1:00
12:00 PM = 12:00
1:00 PM = 13:00
2:00 PM = 14:00
12:00 AM = 0:00

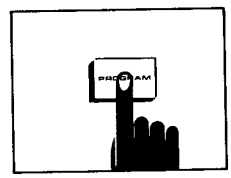
To reset a program after it has been memorized

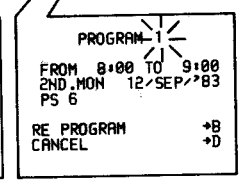


Pour réinitialiser un programme après qu'il a été mémorisé

1

Depress the PROGRAM button.



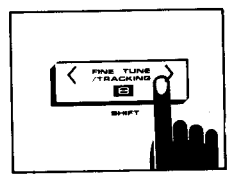


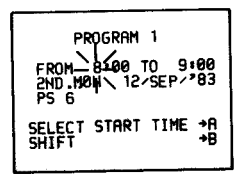
1

Appuyez sur la touche PROGRAM.

2

To follow the instruction "RE PROGRAM — B", depress the > side of the ⧈ button.



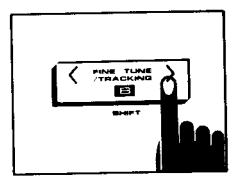


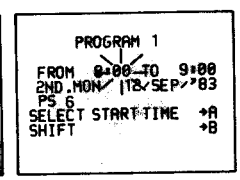
2

Suivant l'instruction "REPROGRAM — B", appuyez sur le côté > de la touche ‹⧈›.

3

To follow the instruction "SHIFT → B", depress the ‹⧈› button until the item you want to reset flashes on and off.



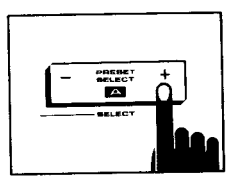


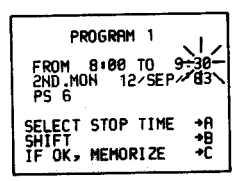
3

Suivant l'instruction "SHIFT → B", appuyez sur la touche ‹⧈› jusqu'à ce que l'élément que vous voulez réinitialiser clignote.

4

Then to follow the instruction "SELECT START TIME/STOP TIME/DAY/PS NO. → A", depress the -⧈+ button and reset the item. Reset other items in the same manner. After you have reset all the items, go to the next step.



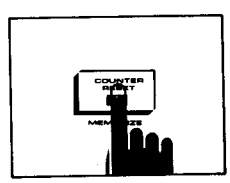


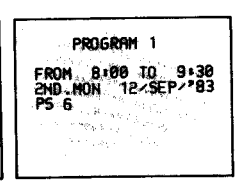
4

Puis, suivant l'instruction "SELECT START TIME/STOP TIME/DAY/PS NO. → A", appuyez sur la touche -⧈+ et réinitialisez l'élément. Réinitialisez les autres éléments de la même manière. Après avoir réinitialisé tous les éléments, passez à l'étape suivante.

5

To follow the instruction "IF OK, MEMORIZE → C", depress the ⧈ button.
The program information will disappear from the screen at the same time.





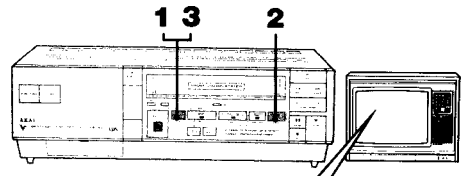
5

Suivant l'instruction "IF OK, MEMORIZE → C", appuyez sur la touche ⧈.
Les informations du programme disparaîtront de l'écran en mme temps.

NOTE:
During programming, any item can be reset by using the ‹⧈› and -⧈+ buttons in the same manner.

REMARQUE:
Pendant la programmation, tout élément peut être réinitialisé en utilisant les touches ‹⧈› et -⧈+ de la même manière.

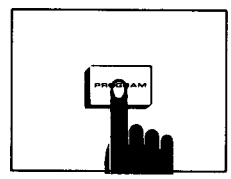
To cancel a program after it has been memorized

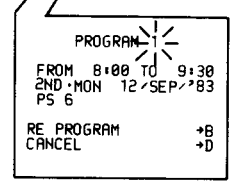


Pour annuler un programme après qu'il a été mémorisé

1

Depress the PROGRAM button.



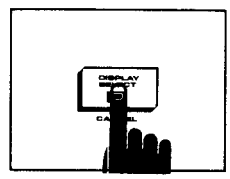


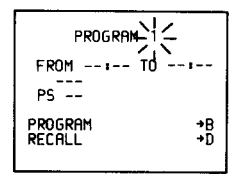
1

Appuyez sur la touche PROGRAM.

2

To follow the instruction "CANCEL → D", depress the ▣ button to cancel the program.



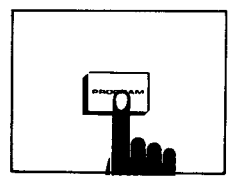


2

Suivant l'instruction "CANCEL → D", appuyez sur la touche ▣ pour annuler le programme.

3

To remove the display from your TV screen, depress the PROGRAM button, again.



3

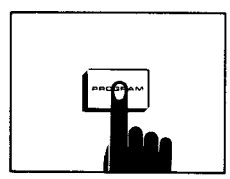
Pour faire disparaître l'affichage de votre écran de télévision, appuyez à nouveau sur la touche PROGRAM.

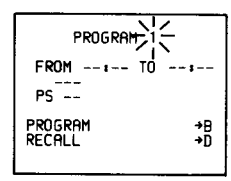
If you want to recall a finished or canceled program

Pour rappeler un programme terminé ou annulé

1

Depress the PROGRAM button.



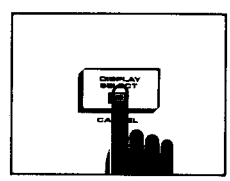


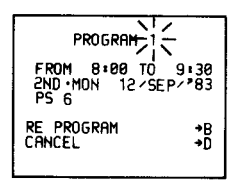
1

Appuyez sur la touche PROGRAM.

2

To follow the instruction "RECALL → D", depress the ▣ button to recall the program.



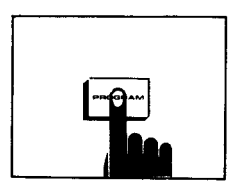


2

Suivant l'instruction "RECALL → D", appuyez sur la touche ▣ pour rappeler le programme.

3

To remove the display from you TV screen, depress the PROGRAM button, again.



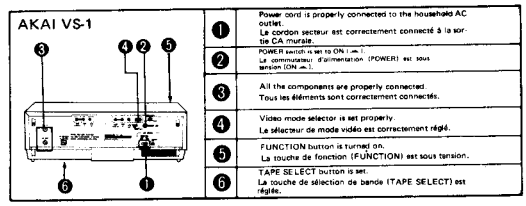
3

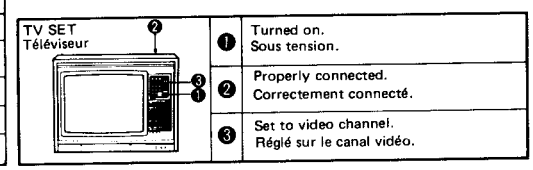
Pour faire disparaître l'affichage de votre écran de télévision, appuyez à nouveau sur la touche PROGRAM.

Setting the Akai VS-1 for automatic recording
Réglons le VS-1 Akai pour un enregistrement automatique

- If you want to automatically record an index (date, time and preset channel), repeatedly depress the ⏺ button until a display containing the day of the week and the actual time is displayed on the TV screen.

- Si vous voulez enregistrer automatiquement un index (date, heure et station préréglée), appuyez de façon répétée sur la touche ⏺ jusqu'à ce qu'un affichage contenant le jour de la semaine et l'heure réelle soit obtenu sur l'écran de télévision.

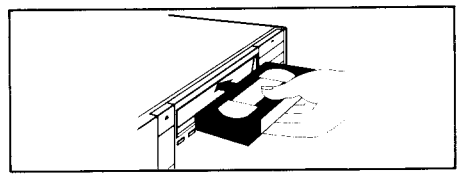




1

Insert a video cassette tape.
* Confirm that the recording defeat tab is not broken. If it is, cover the hole with a piece of adhesive tape.

NOTE:
Make sure that the length of the video cassette tape is long enough for the duration of automatic recording.



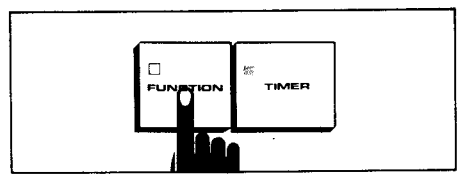
1

Insérez une bande cassette vidéo.
* Vérifiez que la languette de protection contre l'enregistrement n'est pas cassée. Si elle l'est, recouvrir la cavité d'un morceau de bande adhésive.

REMARQUE:
Assurez-vous que la longueur de la bande cassette vidéo est suffisante pour la durée de l'enregistrement automatique.

2

Depress the FUNCTION button to turn off the Akai VS-1.
* Confirm that its indicator is off.



2

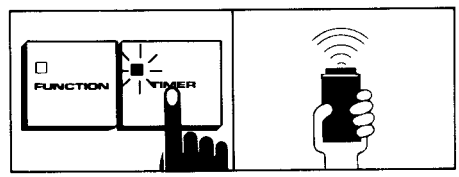
Appuyez sur la touche de fonction (FUNCTION) pour mettre le VS-1 hors circuit.
* Vérifiez que son indicateur est éteint.

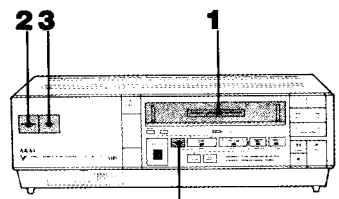
3

Depress the TIMER button to make the Akai VS-1 standby for automatic recording.
* Confirm that its indicator is on.

NOTE:
You can watch a TV program during automatic recording by setting the TV itself to the channel you want.
* Turn off the TV if you are not going to watch a program.

The Akai VS-1 will turn on 6 seconds before the programmed turn on time. One second later, it will automatically start recording and at the programmed turn-off time, it will stop recording and turn itself off.





Program
Programme

3

Appuyez sur la touche minuterie (TIMER) pour mettre le VS-1 Akai en attente d'enregistrement automatique.
* Vérifiez que son indicateur est allumé.

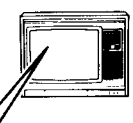
REMARQUE:
Vous pouvez regarder une émission pendant un enregistrement automatique en réglant le téléviseur lui-même sur le canal que vous voulez.
* Mettez le téléviseur hors circuit si vous n'allez pas regarder une émission.

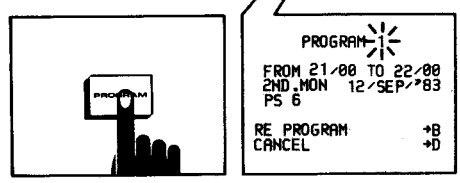
Le VS-1 Akai se mettra sous tension 6 secondes avant l'heure de mise sous tension programmée. Une seconde plus tard, il commencera automatiquement l'enregistrement, il arrêtera l'enregistrement et se mettra hors circuit à l'heure de mise hors circuit programmée.

If you want to confirm a program

Depress the PROGRAM button.

The week, day of the week, start time and preset channel number of the program will be displayed. "- -" indicates that the program was canceled or automatic recording was carried out.





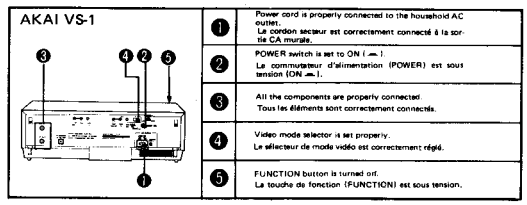
The remove the display from you TV screen, depress the PROGRAM button again.

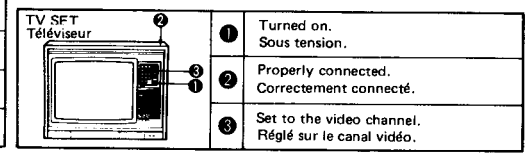
Pour vérifier un programme

Appuyez sur la touche PROGRAM.

La semaine, le jour de la semaine, l'heure de démarrage et le numéro de station préréglée du programme seront affichés. "- -" indique que le programme a été annulé ou que l'enregistrement automatique s'est effectué.

Pour faire disparaître l'affichage de votre écran de télévision, appuyez à nouveau sur la touche PROGRAM.





3 START TIME HOURS / HEURES DE L'HEURE DE DEMARRAGE

To follow the instruction "SELECT START TIME → A", depress the -⏭+ button to select the turn-on hours.

0, 1, 2, ... up to 23

Suivant l'instruction "SELECT START TIME → A", appuyez sur la touche -⏭+ pour sélectionner les heures de mise sous tension.

0, 1, 2, ... jusqu'à 23

4

To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: start time minutes.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: minutes de l'heure de démarrage.

5 START TIME MINUTES / HEURES DE L'HEURE DE DEMARRAGE

To follow the instruction "SELECT START TIME → A", depress the -⏭+ button to select the start time minutes.

00, 01, 02, ... up to 59

Suivant l'instruction "SELECT START TIME → A", appuyez sur la touche -⏭+ pour sélectionner les minutes de l'heure de mise sous tension.

00, 01, 02, ... jusqu'à 59

6

To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: stop time hours.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: les heures de l'heure de mise hors circuit.

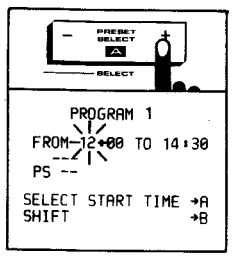
7 STOP TIME HOURS / HEURES DE L'HEURE D'ARRET

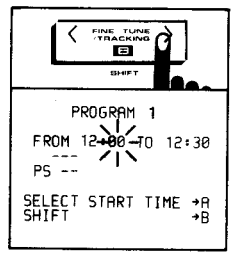
To follow the instruction "SELECT STOP TIME → A", depress the -⏭+ button to select the turn-off hours.

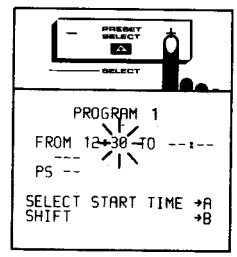
0, 1, 2, ... up to 23

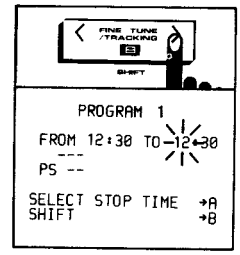
Suivant l'instruction "SELECT STOP TIME → A", appuyez sur la touche -⏭+ pour sélectionner les heures de mise hors circuit.

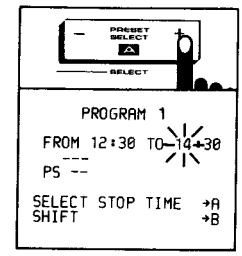
0, 1, 2, ... jusqu'à 23







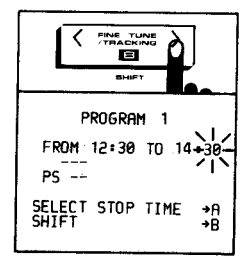




8

To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: stop time minutes.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: les minutes de l'heure de mise hors circuit.



9 STOP TIME MINUTES / MINUTES DE L'HEURE D'ARRET

To follow the instruction "SELECT STOP TIME → A", depress the -⏭+ button to select the stop time minutes.

00, 01, 02, ... up to 59

Suivant l'instruction "SELECT STOP TIME → A", appuyez sur la touche -⏭+ pour sélectionner les minutes de l'heure de mise hors circuit.

00, 01, 02, ... jusqu'à 59

10

To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: week.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: la semaine.

11 WEEK / SEMAINE

To follow the instruction "SELECT DAY → A", depress the -⏭+ button to select the week.

1ST, 2ND, 3RD or 4TH

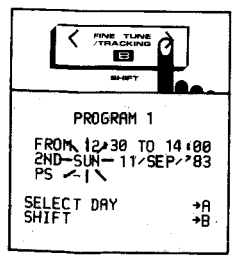
Suivant l'instruction "SELECT DAY → A", appuyez sur la touche -⏭+ pour sélectionner la semaine.

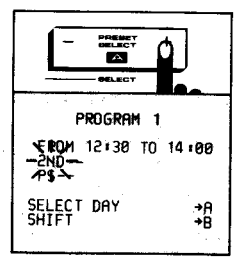
1ère (1ST), 2ème(2ND), 3ème(3RD), ou 4ème (4TH)

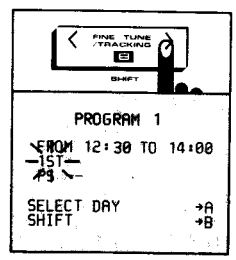
12

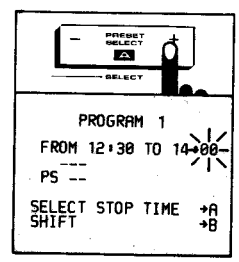
To follow the instruction "SHIFT → B", depress the ⏭ button to shift to the next item to be set: day of the week.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⏭ pour passer à l'élément suivant à régler: le jour de la semaine.



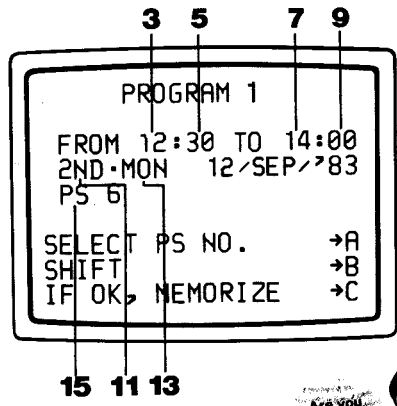






How to program the Akai VS-1 for automatic recording

Comment programmer le VS-1 Akai pour un enregistrement automatique



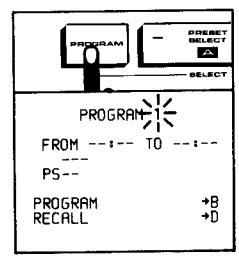
As an example, we will set the program shown in step 15 below.

Par exemple pour programmer les données indiquées à l'étape 15 ci-dessous.

1

Depress the PROGRAM button to display the information for programming on your TV screen.

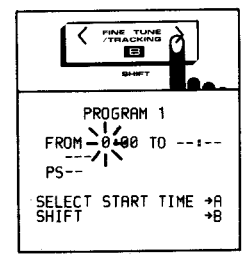
Appuyez sur la touche PROGRAM pour afficher les informations pour la programmation sur votre écran de télévision.



2

To follow the instruction "PROGRAM → B", depress the ⊡› button to start programming.

Suivant l'instruction "PROGRAM → A", appuyez sur la touche ⊡› pour démarrer la progrmmation.



16 MEMORIZE / MEMORISATION

Programming is now finished.
To follow the instruction "IF OK, MEMORIZE → C", depress the C button to memorize the program.
To reset or cancel a memorized program, refer to page 30 ~ 31.

La programmation est maintenant terminée.
Suivant l'instruction "IF OK, MEMORIZE → C", appuyez sur la touche C pour mémoriser le programme.
Pour réinitialiser ou annuler un programme mémorisé, reportezvous pages 30 ~ 31.

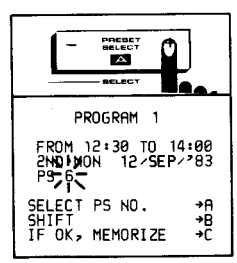
15 PS NO. / NO. DE CANAL PREREGLE

To follow the instruction "SELECT PS NO. → A", depress the -⊡+ button to select the preset channel number.

VS-1EG:
1, 2, 3, 4, ... up to 8
VS-1EO:
1, 2, 3, 4, ... up to 12

Suivant l'instruction "SELECT PS NO. → A", appuyez sur la touche -⊡+ pour sélectionner le numéro de station préréglée.

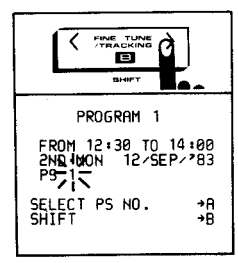
VS-1EG:
1, 2, 3, 4, ... jusqu'à 8
VS-1EO:
1, 2, 3, 4, ... jusqu'à 12



14

To follow the instruction "SHIFT → B", depress the ⊡› button to shift to the next item to be set: preset channel (PS) number memorized with the TV station to be recorded.

Suivant l'instruction "SHIFT → B", appuyez sur la touche ⊡› pour passer à l'élément suivant à régler: le numéro de station préréglée (PS) mémorisé avec la station de télévision à enregistrer.



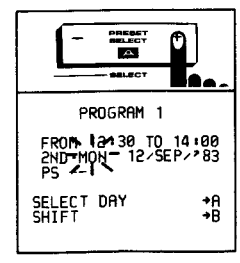
13 DAY OF WEEK / JOUR DE LA SEMAINE

To follow the instruction "SELECT DAY → A", depress the -⊡+ button to select the day.
* When the day of the week is set, the corresponding date will be displayed.

SUN, MON, TUE, WED, THU, FRI or SAT

Suivant l'instruction "SELECT DAY → A", appuyez sur la touche -⊡+ pour sélectionner le jour.
* Lorsque le jour de la semaine est réglé, la date correspondante sera affichée.

DIM, LUN, MAR, MER, JEU, VEN ou SAM



Let's program the Akai VS-1 for automatic recording
Programmation du VS-1 Akai pour un enregistrement automatique

By programming the Akai VS-1, you can make it turn itself on, record a TV program and turn itself off, all automatically.
You can freely choose the Time, Day, Week and TV station you wish to record, and you can do it up to 4 weeks in advance.

En programmant le VS-1 Akai, vous pouvez le faire se mettre sous tension, enregistrer une émission de télévision, et se mettre hors circuit, le tout automatiquement. Vous pouvez choisir librement l'heure, le jour de la semaine, la chaîne de télévision que vous désirez enregistrer, et vous pouvez le faire jusqu'à 4 semaines à l'avance.

- **On the programming displays**
- **Sur les affichages de programmation**

This tells you which preset TV station is to be recorded.

Ceci vous indique quelle station de télévision préréglée doit être enregistrée.

The left tells you the week, the middle the day of the week and the right tells you the date on which automatic recording is to take place.

La gauche vous indique la semaine, le milieu le jour de la semaine, et la droite la date auxquels l'enregistrement automatique doit s'effectuer.

The left tells you the time at which automatic recording is to start and the right tells you the time at which automatic recording is to stop.

La gauche vous indique l'heure à laquelle l'enregistrement automatique doit commencer et la droite l'heure à laquelle il doit se terminer.

This is instructing you to depress the -⊞+ button to select the indication for the flashing item.
"SELECT START TIME" will be displayed when you are to select the time at which automatic recording is to start.
"SELECT STOP TIME" will be displayed when you are to select the time at which automatic recording is to stop.
"SELECT DAY" will be displayed when you are to select the week and the day of the week on which automatic recording is to take place.
"SELECT PS NO." will be displayed when you are to select the preset channel number memorized with the TV station you want to record.

Ceci vous dit d'appuyer sur la touche -⊞+ pour sélectionner l'indication de l'élément clignotant.
"SELECT START TIME" sera affiché lorsque vous devez sélectionner l'heure à laquelle l'enregistrement automatique doit commencer.
"SELECT STOP TIME" sera affiché lorsque vous devez sélectionner l'heure à laquelle l'enregistrement automatique doit se terminer.
"SELECT DAY" sera affiché lorsque vous devez sélectionner la semaine et le jour de la semaine auxquels l'enregistrement automatique doit s'effectuer.
"SELECT PS NO." sera affiché lorsque vous devez sélectionner le numéro de station préréglée mémorisé avec la station de télévision que vous voulez enregistrer.

```
PROGRAM 1
FROM 12:30 TO 14:00
2ND·MON  12/SEP/'83
PS 6
SELECT PS NO.      →A
SHIFT              →B
IF OK, MEMORIZE    →C
```

This is instructing you to depress the ⊏ button to memorize the program.

Ceci vous dit d'appuyer sur la touche ⊏ pour mémoriser le programme.

This is instructing you to depress the ‹⊞› button to choose the item to be set. The chosen item will flash on and off.

Ceci vous dit d'appuyer sur la touche ‹⊞› pour choisir l'élément à régler. L'élément choisi clignotera.

This is instructing you to depress the ‹⊞› button to reprogram a set program.

Ceci vous dit d'appuyer sur ‹⊞› pour reprogrammer un programme réglé.

```
PROGRAM 1
FROM 10/00 TO 10/30
1ST·MON  12/SEP/'83
PS 6
RE PROGRAM         →B
CANCEL             →D
```

This is instructing you to depress the ⊐ button to cancel the program.

Ceci vous dit d'appuyer sur la touche ⊐ pour annuler le programme.

This tells you that this display is for programming.

Ceci vous indique que cet affichage est pour la programmation.

```
PROGRAM 1
FROM --:-- TO --:--
---
PS--
PROGRAM            →B
RECALL             →D
```

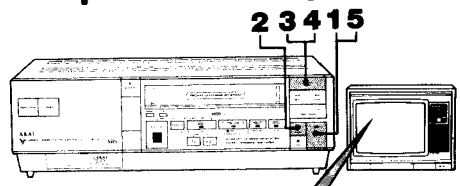
This is instructing you to depress the ‹⊞› button to display the information for programming.

Ceci vous dit d'appuyer sur la touche ‹⊞› pour afficher les informations pour la programmation.

This is instructing you to depress the ⊐ button to recall a program.

Ceci vous dit d'appuyer sur la touche ⊐ pour rappeler un programme.

How to quickly start playback
Comment démarrer rapidement la reproduction

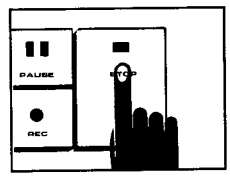


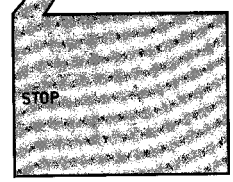
To make playback available as soon as the PLAY (►) button is depressed, put the Akai VS-1 into playback standby.

Pour obtenir la reproduction aussitôt que la touche de reproduction (PLAY ►) est enclenchée, mettez le VS-1 Akai sur le mode d'attente de reproduction.

1

Depress the STOP (■) button.
* "STOP" will be displayed on the TV screen for approximately 3 seconds.



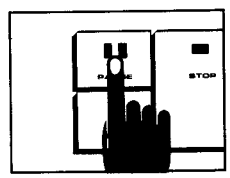


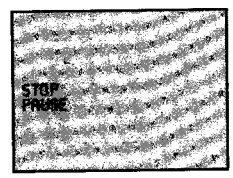
1

Appuyez sur la touche d'arrêt (STOP ■).
* "STOP" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

2

Depress the PAUSE (▮▮) button.
* "STOP-PAUSE" will be displayed on the TV screen for approximately 3 seconds.



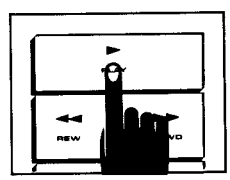


2

Appuyez sur la touche de pause (PAUSE ▮▮).
* "STOP-PAUSE" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

3

Depress the PLAY (►) button to put the Akai VS-1 into still picture playback.
* "PLAY-STILL" (still picture playback) will be displayed on the TV screen for approximately 3 seconds.

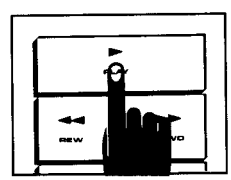


3

Appuyez sur la touche de reproduction (PLAY ►) pour mettre le VS-1 Akai sur le mode de reproduction à arrêt sur image.
* "PLAY-STILL" (arrêt sur image pendant la reproduction) sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

4

Depress the PLAY (►) button again. Playback will begin immediately.
* "PLAY" will be displayed on the TV screen for approximately 3 seconds.

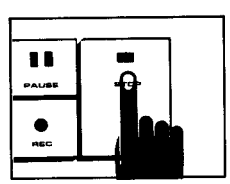


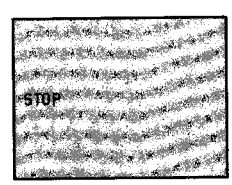
4

Appuyez à nouveau sur la touche de reproduction (PLAY ►). La reproduction commencera immédiatement.
* "PLAY" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

5

To stop playback, depress the STOP (■) button.
* "STOP" will be displayed on the TV screen for approximately 3 seconds.





5

Pour arrêter la reproduction, appuyez sur la touche d'arrêt (STOP ■).
* "STOP" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

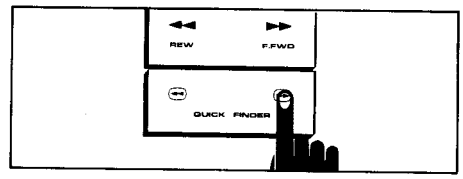
NOTE:
To prevent damage to the tape, do not remain in playback standby for more than 2 minutes.

REMARQUE:
Pour éviter tout dommage à la bande, ne restez pas en mode d'attente de reproduction pendant plus de 2 minutes.

If you want to quickly find a recorded program while watching the picture

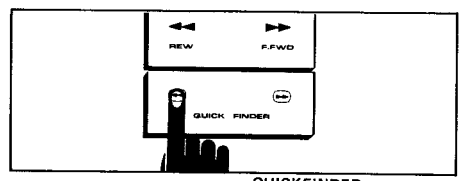
Use the Akai Quick Finder system during playback to quickly find a recorded program. The tape will be played back very quickly. No sound will be heard during quick finder operation.

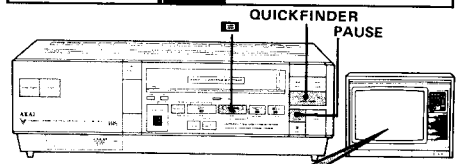
In the forward direction:
Depress the QUICK FINDER (⇔) button. The picture will go forward very quickly. When you reach the point you are looking for, depress the PLAY (►) button to resume normal playback.
* When the QUICK FINDER (⇔) button is depressed, "QF FWD" will be displayed on the TV screen for approximately 3 seconds.



In the reverse direction:
Depress the (⇔) QUICK FINDER button. The picture will go backward very quickly. When you reach the point you are looking for, depress the PLAY (►) button to resume normal playback.
* When the (⇔) QUICK FINDER button is depressed, "QF REV" will be displayed on the TV screen for approximately 3 seconds.

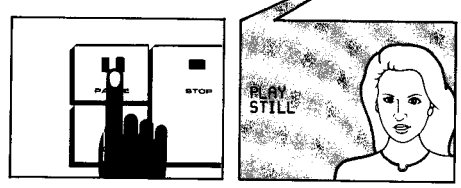
NOTE:
There will be disturbances in the picture during quick finder operation.
This is normal.





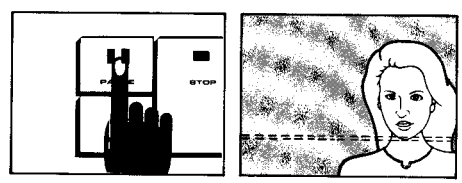
Still picture playback

During playback, you can obtain a still picture by depressing the PAUSE (❚❚) button.
No sound will be heard and there will be noise bars during still picture playback.
To resume normal playback depress the PLAY (►) button.



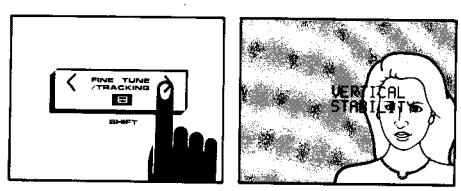
• To move the noise bars

The noise bars which appear during still picture playback can be positioned on the TV screen so that you can look clearly at the details you want.
All you have to do is repeatedly depress the PAUSE (❚❚) button until the noise bars are positioned where you want them to be.



• If the still picture vibrates

If the still picture vibrates, depress the < or > side of the ‹⧈› button. The display for VERTICAL STABILITY will be shown on the TV screen. Release the button when the vibration is reduced.
* To carry out this operation more slowly, repeatedly depress the < ⧈ > button. If you release the < ⧈ > button for too long, the display will disappear. In that case, depress the < ⧈ > button again.



• To fix the position of the noise bars

The above procedure is for positioning the noise bars every time a still picture is obtained. To fix the position of the noise bars so that they will always appear at the same place, while depressing the PAUSE (❚❚) button, depress the < or > side of the ‹⧈› button. The display for tracking will appear on the TV screen and the noise bars will move. Release both buttons to confirm the position of the noise bars. Repeat these procedures until the noise bars are positioned where you want them to be.
* Holding down the < side will continuously move the noise bars downwards and holding down the > side will continuously move the noise bars upwards.

NOTE:
* The Akai VS-1 does not have the same properties as broadcasting equipment. Therefore some noise bars and vibrations will appear on the picture during quick finder and still playback.
* During quick finder and still playback the color may disappear from your picture. This is not the fault of the Akai VS-1 but of your color TV.

Pour trouver rapidement une émission enregistrée tout en regardant l'image

Utilisez le système de recherche rapide Akai pendant une reproduction afin de trouver une émission enregistrée. La bande sera reproduite très rapidement. Aucun son ne sera entendu pendant le fonctionnement de la recherche rapide.

En sens d'avance:
Appuyez sur la touche de recherche rapide (QUICK FINDER ⇔). L'image défilera très rapidement vers l'avant. Lorsque vous atteignez le point recherché, appuyez sur la touche de reproduction (PLAY ►) pour reprendre une reproduction normale.
* Lorsque la touche de recherche rapide (QUICK FINDER ⇔) est enfoncée, "QF FWD" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

En sens de retour:
Appuyez sur la touche de recherche rapide (QUICK FINDER ⇔). L'image défilera très rapidement en retour. Lorsque vous atteignez le point recherché, appuyez sur la touche de reproduction (PLAY ►) pour reprendre une reproduction normale.
* Lorsque la touche de recherche rapide (QUICK FINDER ⇔) est enfoncée, "QF REV" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

REMARQUE:
L'image sera parasitée pendant le fonctionnement en recherche rapide.
C'est normal.

Reproduction par image fixe

Pendant la reproduction, vous pouvez obtenir une image fixe en appuyant sur la touche de pause (PAUSE ❚❚).
Aucun son ne sera entendu et il y aura des barres parasites pendant une reproduction avec arrêt sur image.
Pour reprendre une reproduction normale, appuyez sur la touche de reproduction (PLAY ►).

• Pour déplacer les barres parasites

Les barres parasites qui apparaîssent pendant une reproduction à arrêt sur image peuvent être positionnées sur l'écran de télévision de sorte que vous pouvez voir clairement les détails désirés.
Il vous suffit d'appuyer de façon répétée sur la touche de pause (PAUSE ❚❚) jusqu'à ce que les barres parasites soient positionnées où vous le voulez.

• Si l'image fixe vibre

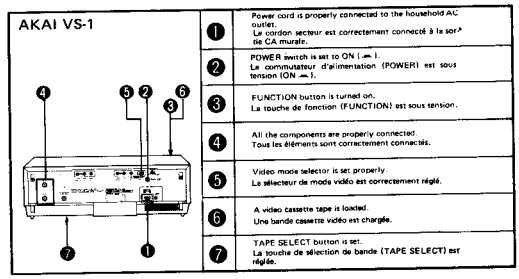
Si l'image fixe vibre, appuyez sur le côté < ou > de la touche ‹⧈› . L'affichage "VERTICAL STABILITY" (stabilité verticale) sera obtenu sur l'écran de télévision. Relâchez la touche lorsque les vibrations sont réduites.
* Pour effectuer plus lentement cette opération, appuyez de façon répétée sur la touche ‹⧈› . Si vous relâchez trop longtemps la touche ‹⧈› l'affichage disparaîtra. Appuyez à nouveau sur la touche ‹⧈› dans ce cas.

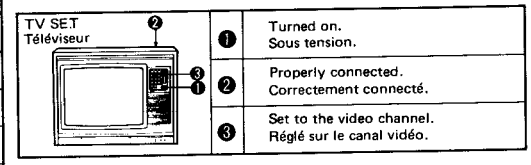
• Pour fixer la position des barres parasites

La méthode ci-dessus est destinée à positionner les barres parasites chaque fois qu'une image fixe est obtenue. Pour fixer la position des barres parasites de sorte qu'elles apparaîssent toujours au même endroit, appuyez sur le côté < ou > de la touche < ⧈ > tout en appuyant sur la touche de pause (PAUSE ❚❚). L'affichage pour l'alignement apparaîtra sur l'écran de télévision et les barres parasites se déplaceront. Relâchez les deux touches pour vérifier la position des barres parasites. Répétez ces opérations jusqu'à ce que les barres parasites soient positionnées où vous le voulez.
* Le fait de maintenir enfoncé le côté < déplacera continuellement les barres parasites vers le bas et le fait de maintenir enfoncé le côté > déplacera continuellement les barres parasites vers le haut.

REMARQUE:
* Le VS-1 Akai n'a pas les mêmes propriétés qu'un équipement d'émission. Des barres parasites et des vibrations apparaîtront donc sur l'image pendant la recherche rapide et la reproduction image par image.
* Pendant la recherche rapide et la reproduction image par image, la couleur peut disparaître de l'écran. Ceci n'est pas dû au VS-1 Akai mais à votre téléviseur.

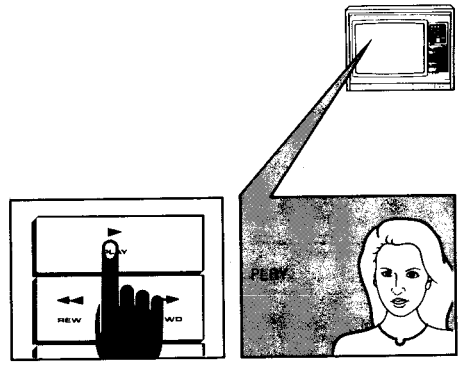
Let's playback a recorded TV program
Reproduction d'une émission de télévision enregistrée





To play back a tape, depress the PLAY (►) button.
* "PLAY" will be displayed on the TV screen for approximately 3 seconds.
* There is a 3 to 4 second delay before playback starts, while the tape moves into position. For instant playback start, refer to page 25.

NOTE:
Whenever the end of the tape is reached, the tape will automatically rewind to the beginning and stop.



Appuyez sur la touche de reproduction (PLAY ►) pour reproduire une bande.
* "PLAY" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.
* Il y an un délai de 3 à 4 secondes avant que la reproduction commence, pendant que la bande se place en position. Pour un démarrage instantané de la reproduction reportez-vous page 25.

REMARQUE:
Lorsque la bande atteint son extrémité, elle sera automatiquement rembobinée jusqu'à son début et s'arrêtera.

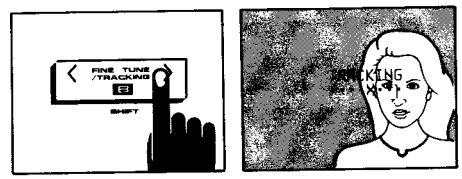
• To adjust the tracking control

NOTE:
There may be disturbances in the playback picture. This can occur when you play back a tape recorded with another video cassette recorder. To improve the picture, depress the ‹ ▭ › button.
* The tracking display "X" is normally set to the center of the tracking display.

NOTE:
To improve the picture, depress the ‹ ▭ › button to show the display for tracking. Depress the < side to move the "X" towards the left and depress the > side to move the "X" towards the right.

* Holding down the button will move the "X" continuously.
* To carry out the tracking operation more slowly, repeatedly depress the ‹ ▭ › button. If you release the ‹ ▭ › button for too long, the display will disappear. In that case, depress the ‹ ▭ › button again.

When the picture is clear, release the button to stop tracking.
* The display will disappear a few seconds later.



• Pour régler la commande d'alignement

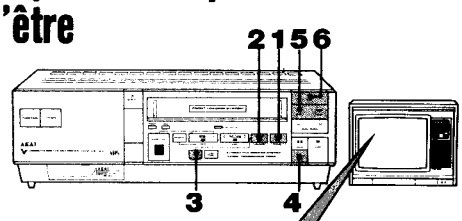
NOTE:
Il peut y avoir des parasites sur l'image reproduite. Ceci se produit lorsque vous reproduisez une bande enregistrée avec un autre magnétoscope. Appuyez sur la touche ‹ ▭ › pour améliorer l'image.
* L'affichage d'alignement "X" est normalement réglé au centre de l'affichage d'alignement.

NOTE:
Pour améliorer la qualité de l'image, appuyez sur la touche ‹ ▭ › afin d'obtenir l'affichage pour l'alignement. Appuyez sur le côté ‹ pour déplacer le "X" vers la gauche, et appuyez sur le côté › pour déplacer le "X" vers la droite.

* Le fait de maintenir la touche enfoncée fera se déplacer continuellement le "X".
* Pour effectuer plus lentement les opérations de réglage de l'alignement, appuyez de façon répétée sur la touche. Si vous relâchez la touche ‹ ▭ › pendant trop longtemps, l'affichage disparaîtra. Appuyez à nouveau sur la touche ‹ ▭ › dans ce cas.

Lorsque l'image est claire, relâchez la touche pour arrêter le réglage de l'alignement.
* L'affichage disparaîtra quelques secondes plus tard.

To quickly find and playback the just recorded TV program
Pour trouver et reproduire rapidement l'émission de télévision qui vient juste d'être enregistrée

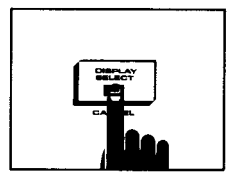


Use the AUTO STOP (COUNTER "0") system to quickly locate the beginning of the just recorded program.

Utilisezle système automatique d'arrêt à zéro du compteur pour localiser rapidement le début de l'émission qui vient juste d'être enregistrée.

1

Repeatedly depress the ▣ button until the tape counter is displayed on the TV screen.

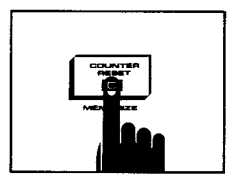


1

Appuyez de façon répétée sur la touche ▣ jusqu'à ce que le compteur de bande soit affiché sur l'écran de télévision.

2

Depress the ⊏ button to reset the tape counter to "0000"

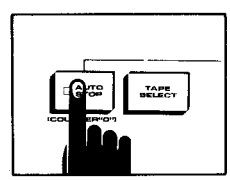


2

Appuyez sur la touche ⊏ pour réinitialiser le compteur de bande à "0000".

3

Depress the AUTO STOP (COUNTER "0") button.
* Confirm that its indicator is on.

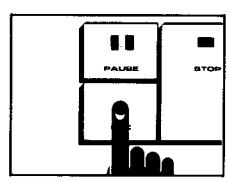


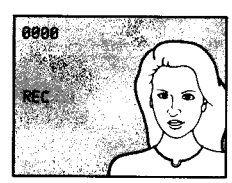
3

Appuyez sur la touche arrêt automatique "0" compteur [AUTO STOP (COUNTER "0")].
* Vérifiez que son indicateur est allumé.

4

Depress the REC (●) button for at least 1 second to begin recording.
* "REC" will be displayed on the TV screen for approximately 3 seconds.



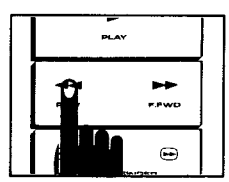


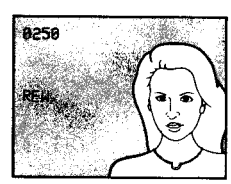
4

Appuyez sur la touche d'enregistrement (REC ●) pendant au moins 1 seconde pour démarrer l'enregistrement.
* "REC" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

5

At the end of the recording, depress the REW (◄◄) button.
The tape will rewind to the beginning of the program (in other words, to the counter reading of "0000") and stop.



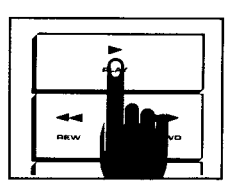


5

A la fin de l'enregistrement, appuyez sur la touche de rembobinage (REW ◄◄).
La bande sera rembobinée jusqu'au début de l'émission (en d'autres mots l'indication "0000" du compteur) et s'arrêtera.

6

Depress the PLAY (►) button to begin playback.
* "PLAY" will be displayed on the TV screen for approximately 3 seconds.



6

Appuyez sur la touche de reproduction (PLAY ►) pour démarrer la reproduction.
* "PLAY" sera affiché pendant approximativement 3 secondes sur l'écran de télévision.

NOTE:
To use the counter auto zero stop system during playback, depress the PLAY (►) button instead of the REC (●) button in step 4.

REMARQUE:
Pour utiliser le système automatique d'arrêt zéro compteur pendant une reproduction, appuyez sur la touche de reproduction (PLAY ►) à la place de la touche d'enregistrement (REC ●) à l'étape 4.

8-4-3. VIF ADJUSTMENT (Refer to Fig. 8-13 to 8-14)

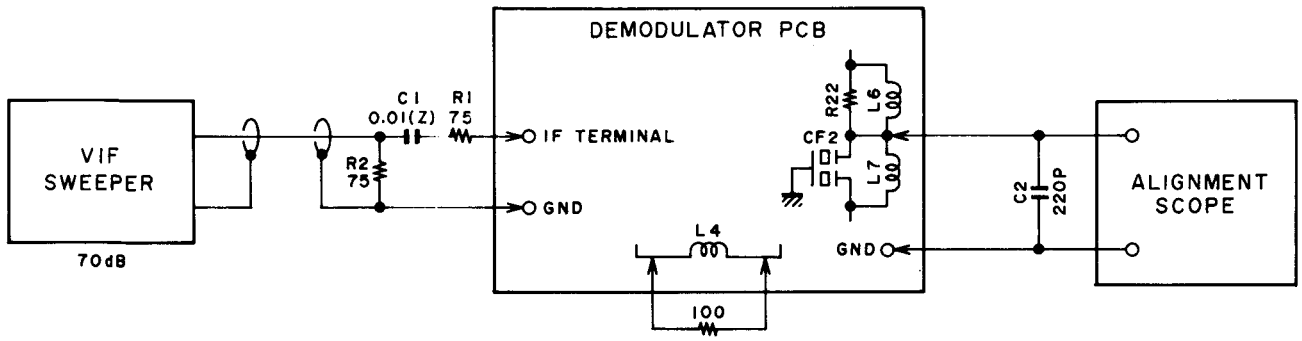


Fig. 8-11

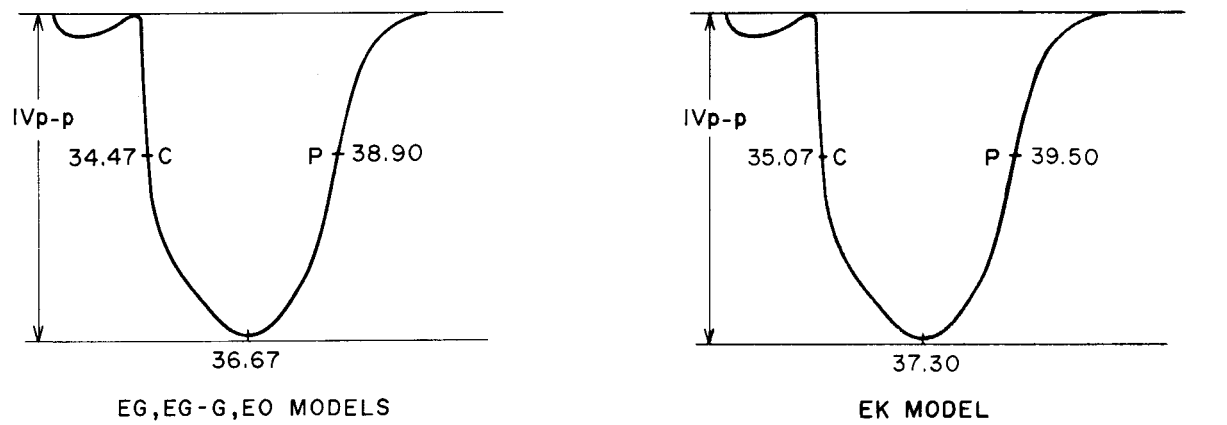


Fig. 8-12

a) Apply VIF sweeper output of 70dB to IF terminal.
b) Connect an alignment scope as shown Fig. 8-11.
c) Connect dummy resistors of 100 ohms to both ends of the tank coil (L4).
d) Set the alignment scope to 10th graduation by means of the IF AGC volume and adjust the L3 so that the center, P and C marker positions are maximum as shown in Fig. 8-12.
e) Adjust the Tuner IF coil so that the P and C level is as shown in Fig. 8-12.

8-4-4. IF AGC ADJUSTMENT

a) Tune the RF signal (EG, EG-G = 12 CH Color Bar, EK = 30 CH Color Bar).
b) Connect an oscilloscope to video output terminal and adjust VR3, so that the video output level is 0.9 Vp-8.

8-4-5. RF AGC ADJUSTMENT

V-AGC

a) Receive VH channel and connect oscilloscope to the video out terminal (Pin ④ of P 42.).
b) Adjust VR2, so that the Noise disappears from the Noise condition and sync. signal becomes rather small.

U-AGC

a) Receive UHF channel, and connect oscilloscope to the video output terminal (Pin ④ of P 42).
b) Adjust VR1 in the same way as V-AGC Adjustment.

8-4-6. AUDIO OUTPUT ADJUSTMENT

a) Apply DC 9.0V to Pin ② of P 1.
b) Connect an AC voltmeter and a distortion meter to Pin 2 of P 42.
c) Add the following RF signals to ANT IN.
EG, EG-G, EO models VHF 12 CH (Color Bar) } 58dB
EK model UHF 30 CH (Philips) }
d) Adjust with VR4 so that the reading of the AC voltmeter will be – 6 dB.

IX. DC RESISTANCE OF VARIOUS COILS

PARTS	NAME	DC RESISTANCE
A/C HEAD (H902, 903, 904)	HV225207SCD	AUDIO 270 ohms ± 10% CONTROL 820 ohms ± 10% ERASE 1.98 ohms ± 10%
FE HEAD (H905)	HV113201V	3 ohms ± 10%
PU (PG) HEAD	TP306	580 ohms ± 10%
CM FG COIL		70 ohms ± 10%
CAPSTAN MOTOR (M901)	JJN3B02	4.5 ohms ± 10%
LOADING MOTOR (M902)	MXN-12AE18A	30 ~ 50 ohms ± 25%
REEL MOTOR (M903)	MJB5B51	23.5 ohms ± 10%
EJECT MOTOR (M904)	MMN-5C2RP	20 ohms ± 10%
PLUNGER SOLENOID (SL901)	1240PLT (15V)	RED ↔ ORG 30 ohms ± 10% RED ↔ BLK 200ohms ± 10%

X. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

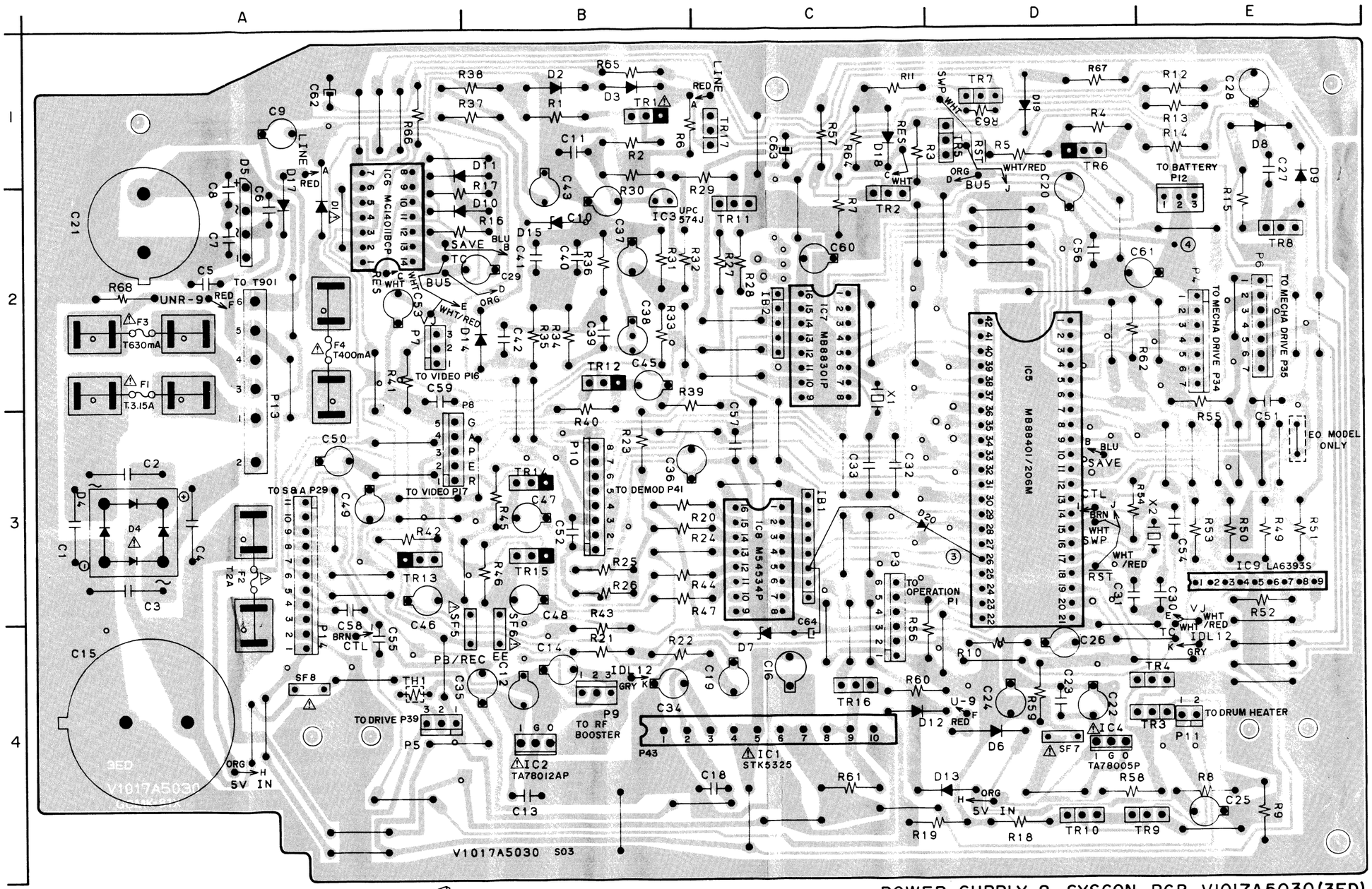
VS-1

P.C Board Title	P.C Board Number	Remarks
Video P.C Board	V1017A5040 (3ED)	
Power supply & Syscon P.C Board	V1017A5030 (3ED)	
Operation P.C Board	V1015A505A (4ED)	
LED P.C Board	V1015A505B	
LED P.C Board	V1015A505C	EO model only
Servo & Audio P.C Board	V1017A5010 (5ED)	
Mecha Drive P.C Board	V1015A502A (5ED)	
L SW A P.C Board	V1015A502C	
L SW B P.C Board	V1015A502B	
RS SW P.C Board	V1015A503D	
Demodulator P.C Board	6B00159C	
Demodulator P.C Board	6B00159D	EO model only
Drive P.C Board	M3201C5010	
Sensor (R) P.C Board	V1015D2350	
Sensor (L) P.C Board	V1015D2150	
Power Filter P.C Board	V1017D5060	
SLEEP P.C Board	V1017D5170	
Battery P.C Board	V1017D5150	
AC Head P.C Board	V1017A5140	
Full Erase Head P.C Board	V1017A5130	
Hall IC (R) P.C Board	V1017D5070	
Hall IC (L) P.C Board	V1017D5080	

RC-V404 (REMOTE CONTROL UNIT: OPTIONAL ACCESSORY)

P.C Board Title	P.C Board Number	Remarks
Receiver P.C Board		RC-R4
Transmitter (1) P.C Board		RC-T4
Transmitter (2) P.C Board		RC-T4

11-2. POWER SUPPLY & SYSCON P.C BOARD V1017A5030 (3ED)

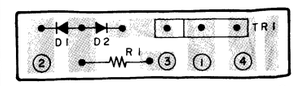


LOCATION OF COMPONENTS

TR
TR1.....B1
TR2.....C1
TR3,4.....E4
TR5to7....D1
TR8.....E2
TR9.....E4
TR10.....D4
TR11.....C2
TR13.....A3
TR14,15...B3
TR16.....C4
TR17.....C1

IC
IC1.....C4
IC2.....B4
IC3.....B2
IC4.....D4
IC5.....D3
IC6.....A1
IC7.....C2
IC8.....C3
IC9.....E3

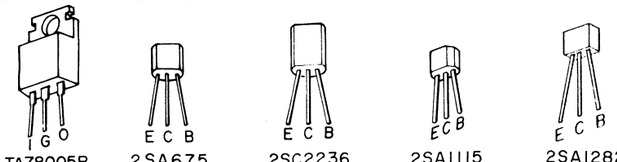
TERMINAL
P3.....C3
P4.....E2
P5.....A4
P6.....E2
P7.....A2
P8.....A3
P9.....B4
P10.....B3
P11.....E4
P12.....E2
P13.....A2
P14.....A3



SLEEP PCB V1017D5170

POWER SUPPLY & SYSCON PCB V1017A5030(3ED)

TR1 ---------- 2SA675(A)(E,F,H)
TR2.9 ---------- 2SC2236(O,Y)
TR3.4.5.8.10.11.16.17 -- 2SC2603(D,E,F)
TR6.12 ---------- 2SA1115(D,E,F)
TR7 ---------- 2SD1010(R,S,T)
TR13.14.15 ---------- 2SA1282A(E,F,G)



TA78005P
TA78012AP
I: INPUT
O: OUTPUT
G: GND

2SA675
2SD1010

2SC2236

2SA1115
2SC2603

2SA1282

= NPN TRANSISTOR
= PNP TRANSISTOR
= GERMANIUM DIODE
= SILICON DIODE

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

XI. COMPOSITION OF VARIOUS P.C BOARDS

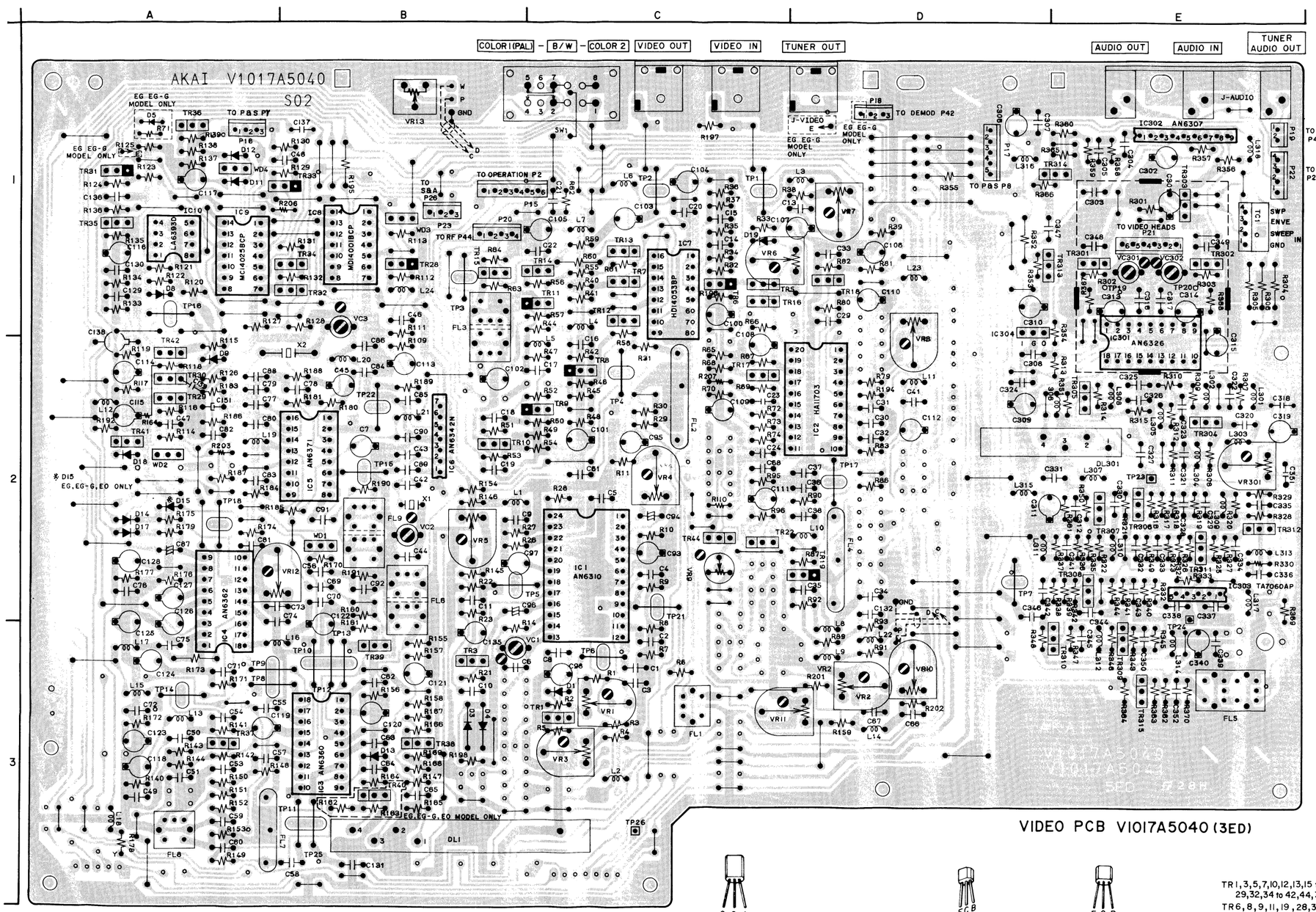
11-1. VIDEO P.C BOARD V1017A5040 (3ED)

LOCATION OF COMPONENTS

IC
IC1.....C2
IC2.....D2
IC3.....B3
IC4.....A2
IC5.....B2
IC6.....B2
IC7.....C1
IC8.....B1
IC9.....A1
IC10.....A1
IC301.....E2
IC302.....E1
IC303.....E2
IC304.....D1

TR
TR1.....C3
TR3.....B3
TR5.....C1
TR6.....C1
TR7.....C1
TR8.....C2
TR9.....C2
TR10.....B2
TR11.....C1
TR12.....C1
TR13.....C1
TR14.....C1
TR15.....B1
TR16.....C1
TR17.....C2
TR18.....D1
TR19.....D2
TR22.....C2
TR24.....C3
TR28.....B1
TR29.....A2
TR30.....A2
TR31.....A1
TR32.....B1
TR33.....B1
TR34.....B1
TR35.....A1
TR36.....A1
TR37.....A3
TR38.....B3
TR39.....B3
TR40.....B3
TR41.....A2
TR42.....A2
TR44.....C2
TR301.....E1
TR302.....E1
TR303.....E1
TR304.....E2
TR305.....E2
TR306.....E2
TR307.....E2
TR308.....E2
TR309.....E3
TR310.....E3
TR311.....E2
TR312.....E2
TR313.....E1
TR314.....E1
TR315.....E3

CONNECTOR
P15.....B1
P16.....A1
P17.....D1
P18.....D1
P19.....E1
P20.....B1
P21.....E1
P22.....E1
P23.....B1



B
= PNP TRANSISTOR
= NPN TRANSISTOR
B

WD1 to 4

VR1.....WHT-CLIP
VR2.....REC Y CURRENT
VR3.....DARK CLIP
VR4.....AGC GAIN
VR5.....DEVIATION
VR6.....B/C CLIP
VR7.....EE LEVEL
VR8.....CARRIER BALANCE
VR9.....PB Y LEVEL
VR10....REC CHROMA CURRENT
VR11....PB CHROMA LEVEL
VR12....AFC
VR301...PEAKING
VC1.....CARRIER SET
VC2.....LOCAL OSC
VC3.....APC OSC
VC301...CH-1 FO
VC302...CH-2 FO

TA78L005AP
I: INPUT
O: OUTPUT
G: GND

2SA1115
2SC2603

2SC1213
2SB774
2SD1010

TR1,3,5,7,10,12,13,15 to 18,22
29,32,34 to 42,44,301 to 315 - - - - 2SC2603 (D,E,F)
TR6,8,9,11,19,28,31,33 - - - - - - 2SA1115 (D,E,F)
TR14 - - - - - - - - - - - - - - 2SC1213 (C)
TR30 - - - - - - - - - - - - - - 2SD1010 (R,S,T)
TR24 - - - - - - - - - - - - - - 2SB774 (R,S,T)

11-3. SERVO & AUDIO P.C BOARD V1017A5010 (5ED)

LOCATION OF COMPONENTS

IC
IC1.....D1
IC2.....B1
IC3.....B1
IC4.....C1
IC5.....C1
IC6.....B1
IC7.....B1
IC8.....D2
IC9.....C2
IC10.....B2
IC11.....C2
IC201.....A1

TR
TR1.....B1
TR3.....B1
TR4.....B1
TR5.....D2
TR6.....D2
TR7.....D2
TR8.....C2
TR9.....C2
TR10.....B2
TR11.....B2
TR12.....C2
TR13.....D2
TR201.....A2
TR202.....A2
TR203.....A2
TR206.....A1
TR208.....A2
TR209.....A2
TR210.....A1

CONNECTOR
P25.....A1
P26.....C1
P27.....B1
P28.....C1
P29.....A1
P30.....A2
P31.....B2
P33.....D2
P56.....B2
TP1.....C1

= NPN TRANSISTOR

= PNP TRANSISTOR

2SC2603
2SA1115

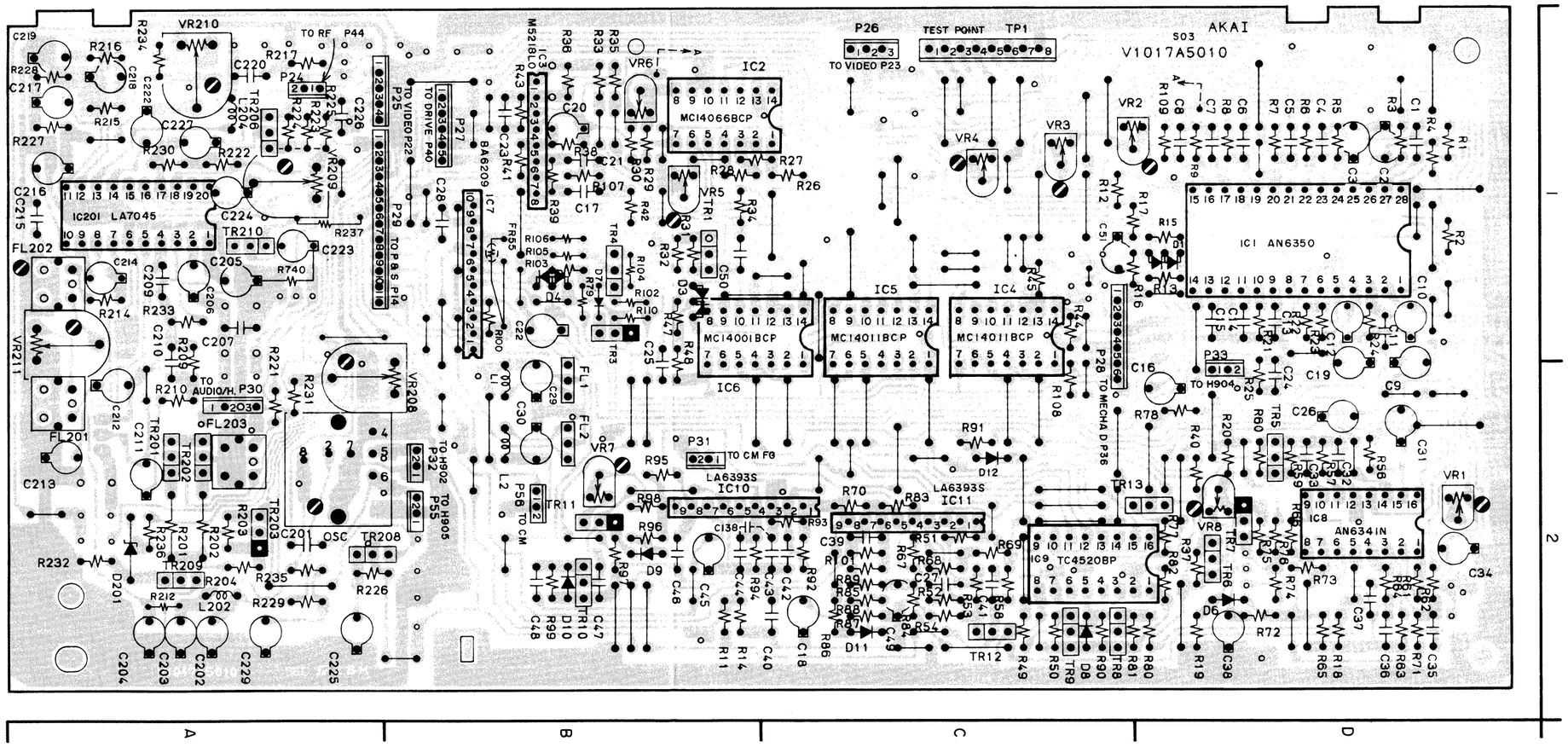
2SD1010
2SC2320

2SB788
2SD958

TEST POINTS (TP1)
1 DPG
2 REF V
3 SW PULSE
4 COLOR PULSE
5 DM SPEED
6 CTL
7 CM SPEED
8 GND

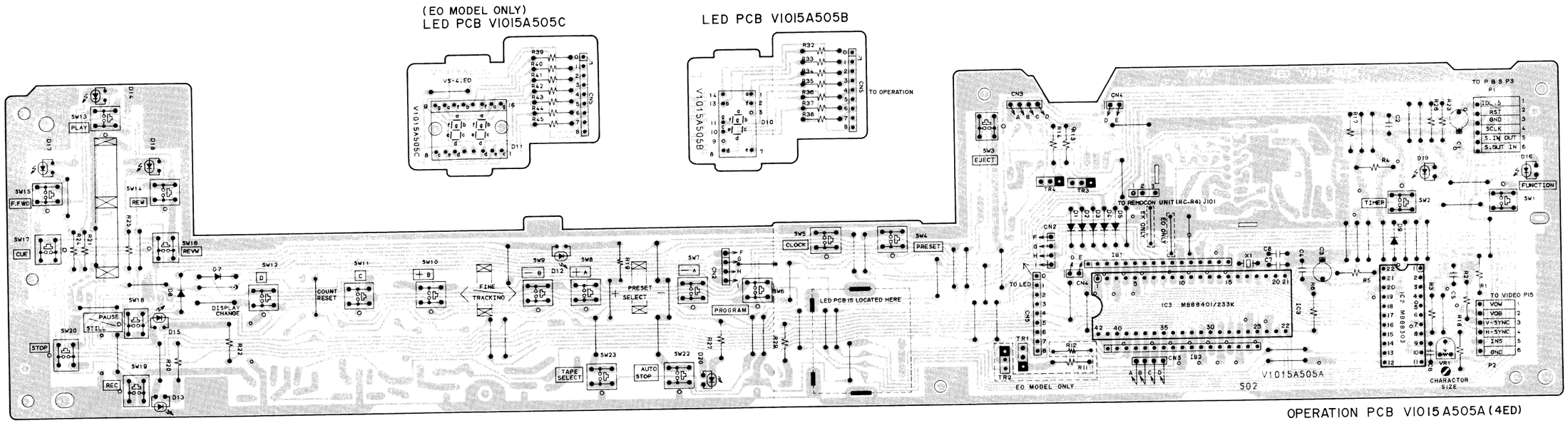
TR1,4,5,6,8,9,12,13
206,208,209 ---- 2SC2320 or 2SC2603 (D,E,F)
TR10 ---------- 2SC2603 (D,E,F)
TR3,7,11 -------- 2SA1115 (D,E,F)
TR201,202 ----- 2SD958 (S,T,U)
TR203 -------- 2SB788 (S,T,U)
TR210 -------- 2SD1010 (R,S,T)

SERVO & AUDIO PCB V1017A5010(5ED)



VR1.....Capstan Motor Normal Speed
VR2.....REC Switching Point
VR3, VR4 ....Switching Point
VR5.....Drum Motor Normal Speed
VR6.....Color phase
VR7.....Tracking Preset
VR8.....Capstan Motor Speed at Cue & Review (Quick Finder) mode
VR208...Bias Voltage
VR209...EE Level
VR210...REC Level
VR211...P.B Level
FL202...Bias leak
OSC BLOCK..Bias OSC Frequency

11-4. OPERATION P.C BOARD V1015A505A (4ED), LDE P.C BOARDS V1015A505B, V1015A505C



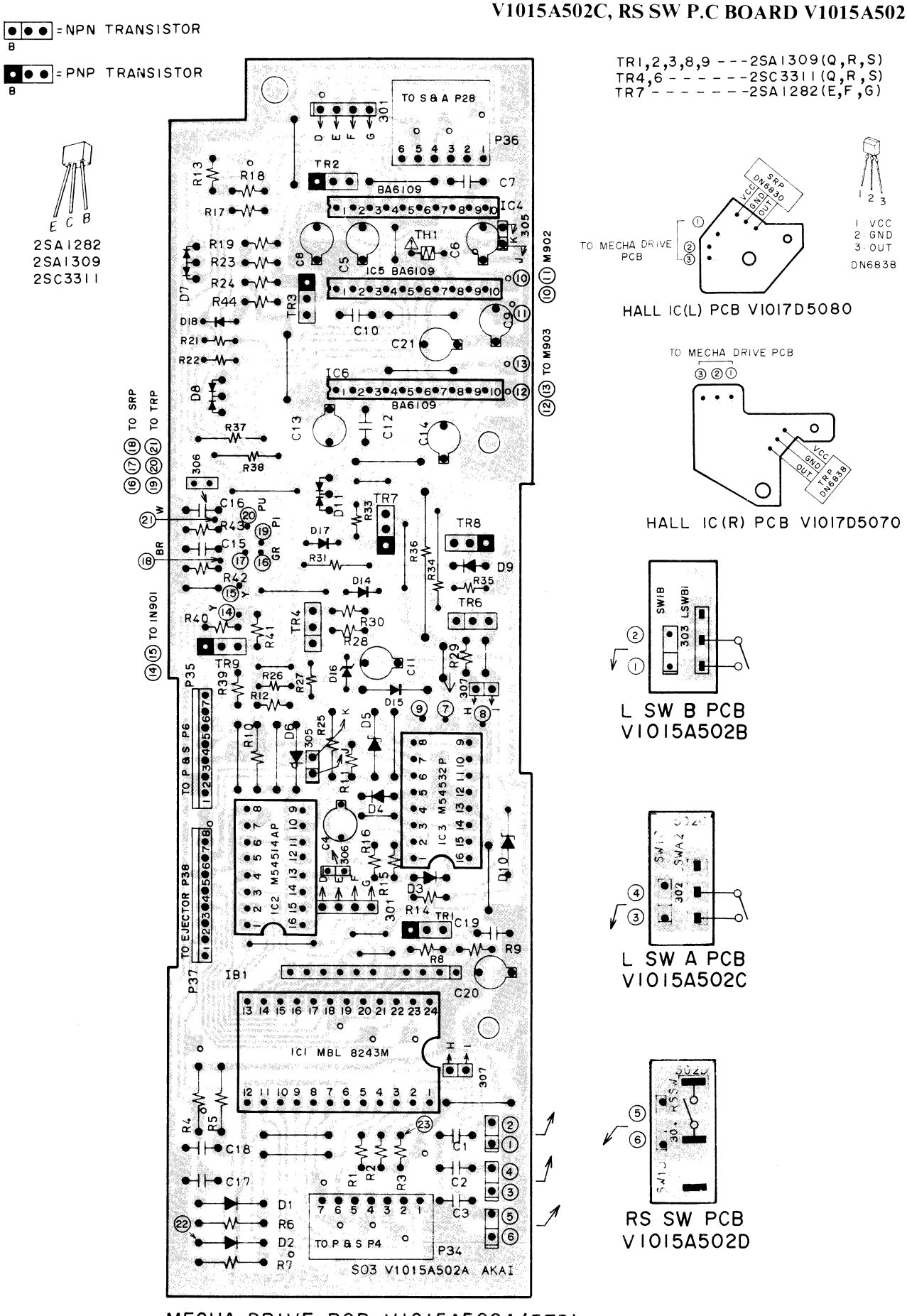
OPERATION PCB V1015A505A (4ED)

B C E
= PNP TRANSISTOR

TR1 to 4 ----2SA1115

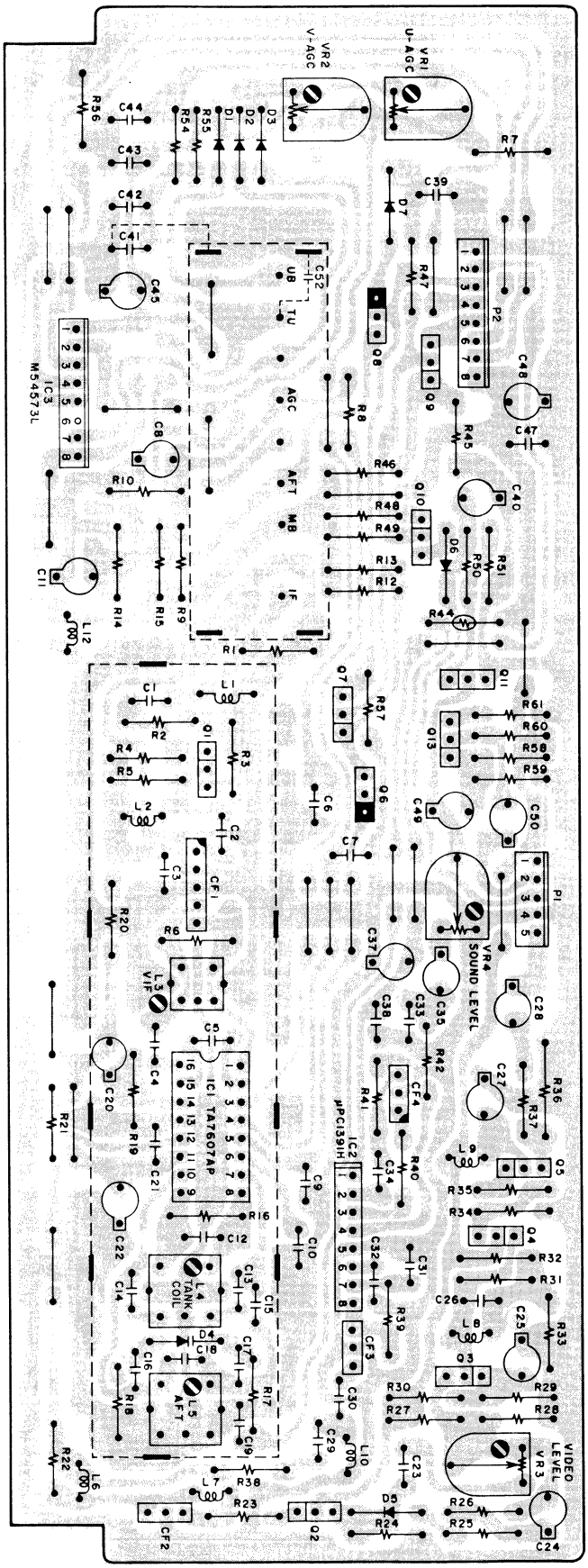
E C B
2SA1115

11-5. MECHA DRIVE P.C BOARD V1015A502A (5ED), HALL IC (L) P.C BOARD V1017D5080, HALL IC (R) P.C BOARD V1017D5070, L SW B P.C BOARD V1015A502B, L SW A P.C BOARD V1015A502C, RS SW P.C BOARD V1015A502D

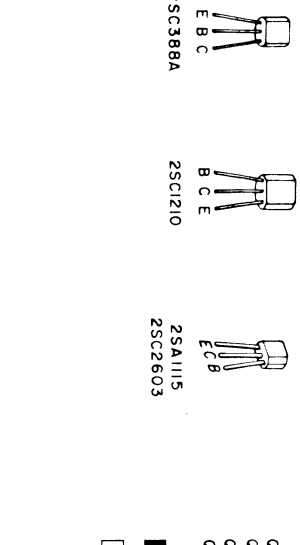


11-6. DEMODULATOR P.C BOARD 6B00159C

1) EG, EG-G Models



DEMODULATOR PCB (EG/EG-G)

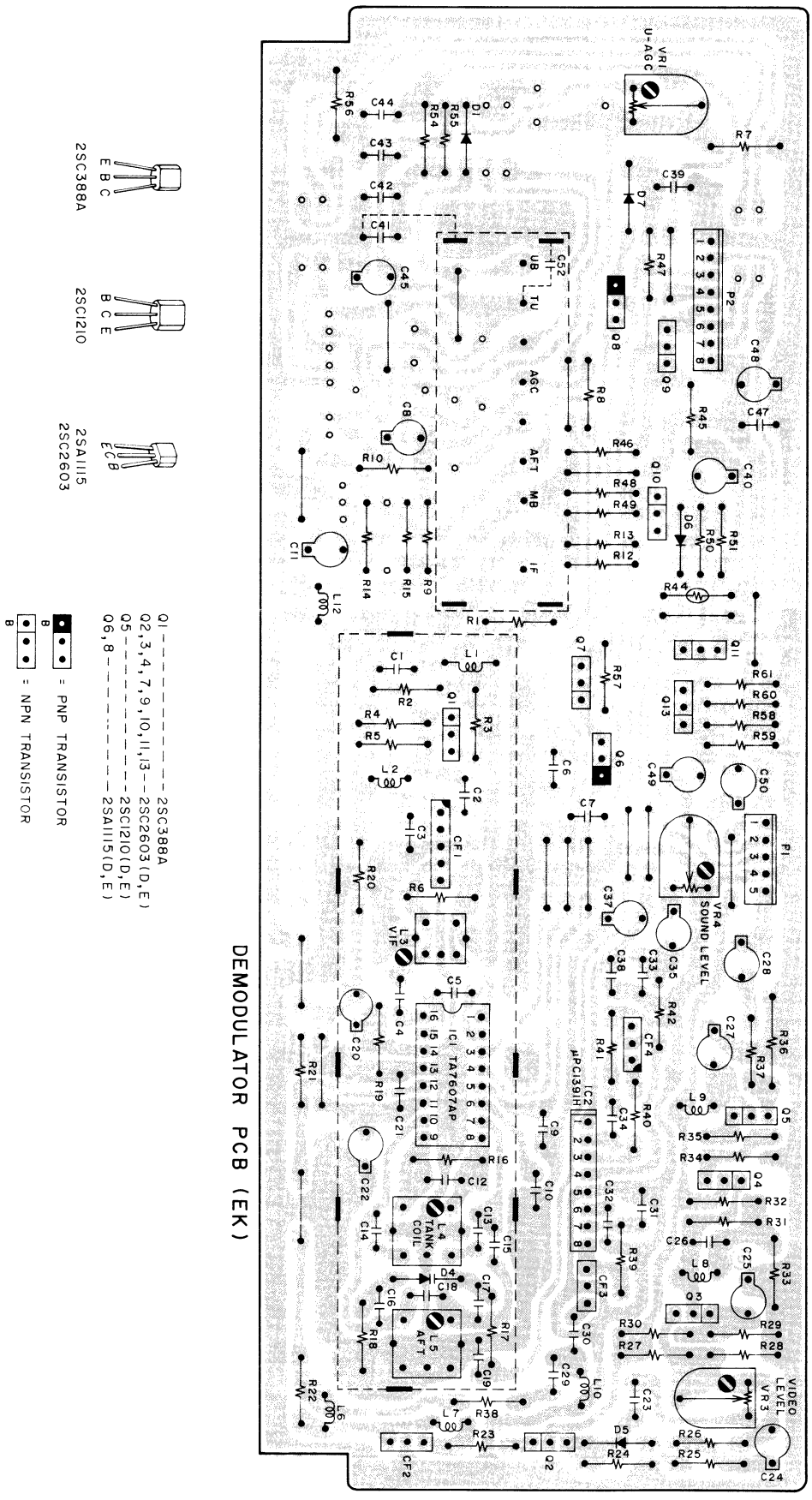


Q1 - - - - - - - - - - - - 2SC388A
Q2,3,4,7,9,10,11,13 - - 2SC2603(D,E)
Q5 - - - - - - - - - - - - 2SC1210(D,E)
Q6,8 - - - - - - - - - - 2SA1115(D,E)

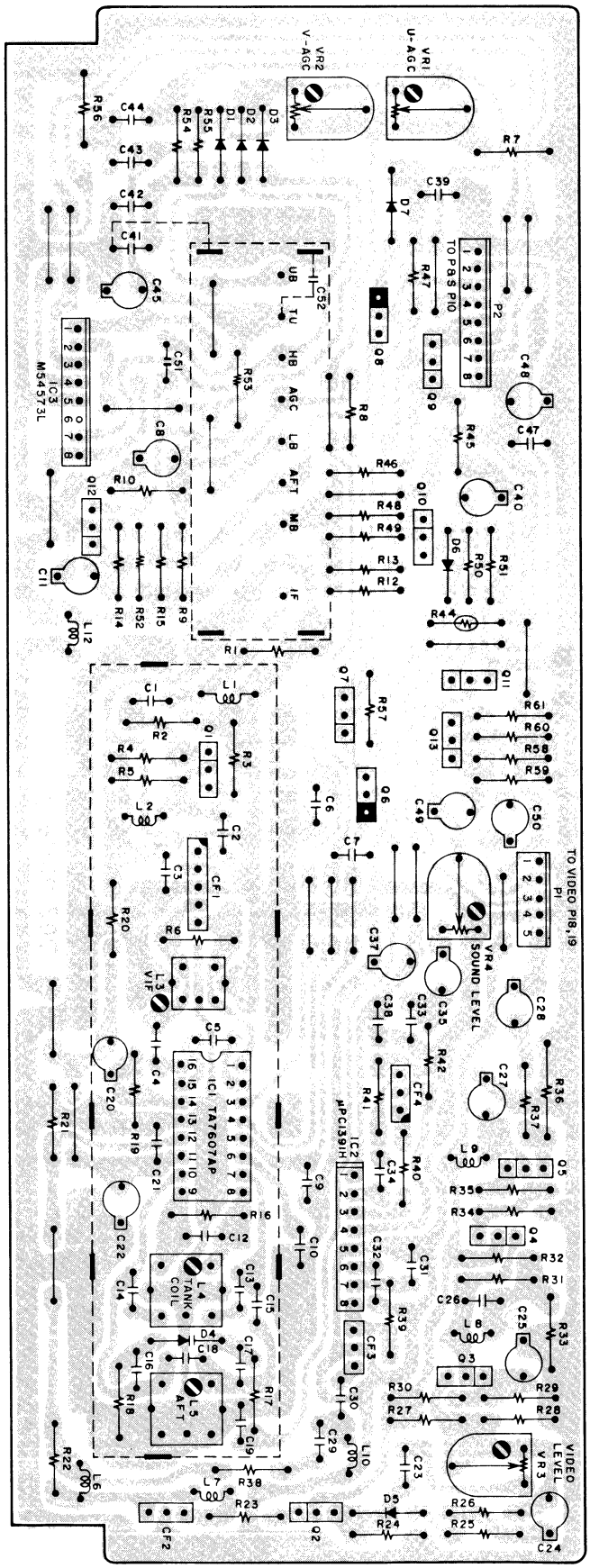
= PNP TRANSISTOR

= NPN TRANSISTOR

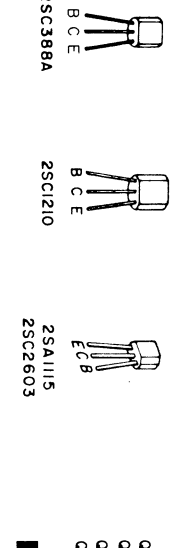
2) EK Model


DEMODULATOR PCB (EK)
Q1 - - - - - - - - - - - - - 2SC388A
Q2,3,4,7,9,10,11,13 - - 2SC2603 (D,E)
Q5 - - - - - - - - - - - - 2SC1210 (D,E)
Q6,8 - - - - - - - - - - - 2SA1115 (D,E)
= PNP TRANSISTOR
= NPN TRANSISTOR
2SC388A
2SC1210
2SA1115
2SC2603
VR1 U-AGC
VR4 SOUND LEVEL
VR3 VIDEO LEVEL
IC1 TA7607AP
IC2 μPC1391H
L3 VIF
L4 TANK COIL
L5 AFT
P1
P2
TU
IF
AGC
AFT
MB
SIF

3) EO Model



DEMODULATOR PCB (EO)

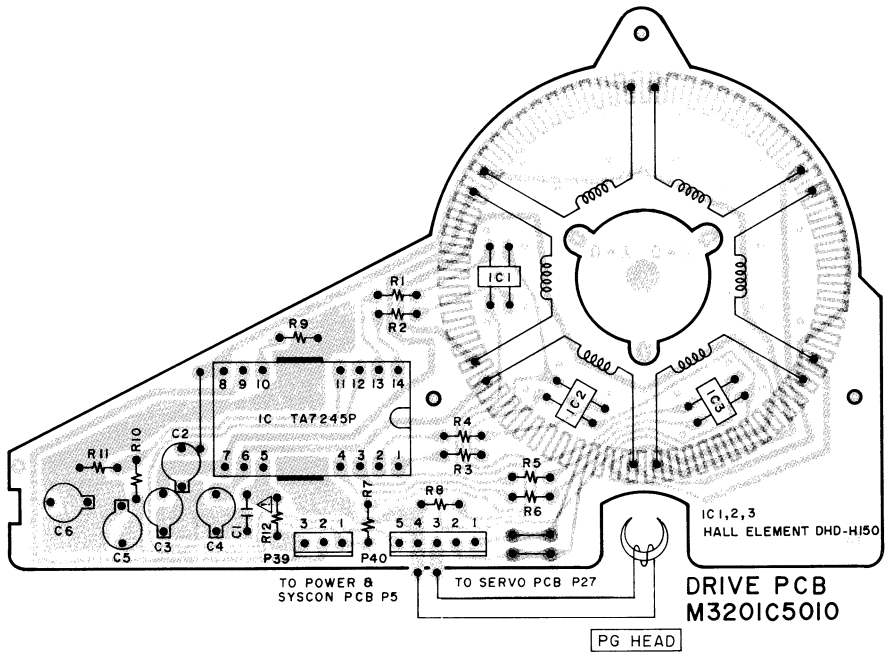


Q1 ---------- 2SC388A
Q2,3,4,7,9,10,11,13--2SC2603(D,E)
Q5 ---------- 2SC1210(D,E)
Q6,8, ---------- 2SA1115(D,E)

= PNP TRANSISTOR

= NPN TRANSISTOR

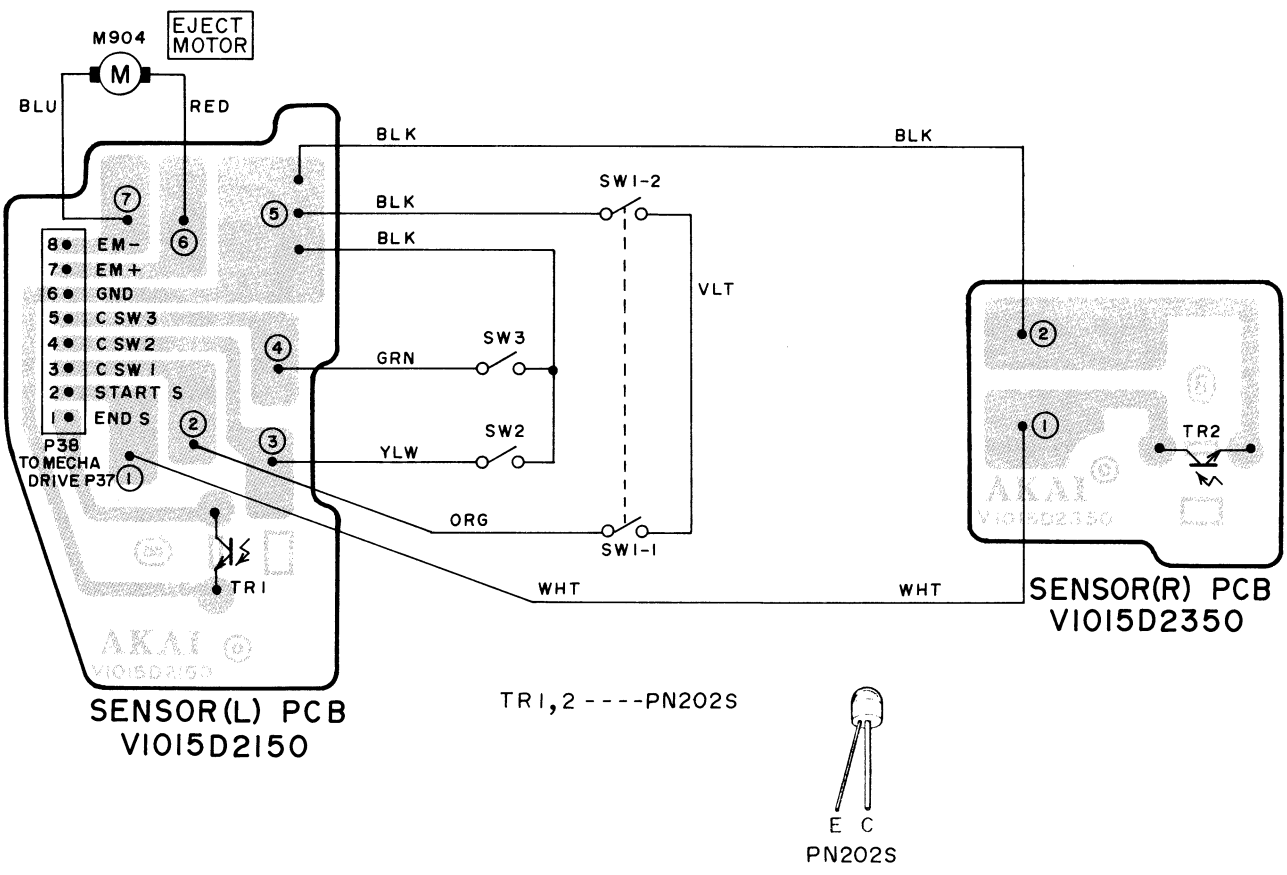
11-7. DRIVE P.C BOARD M3201C5010



WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

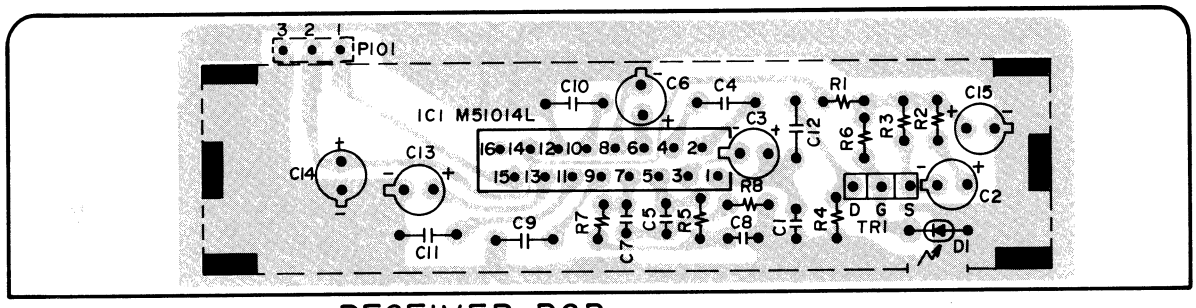
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

11-8. SENSOR (R) AND (L) P.C BOARDS V1015D2350/V1015D2150



11-9. REMOTE CONTROL UNIT RC-V404

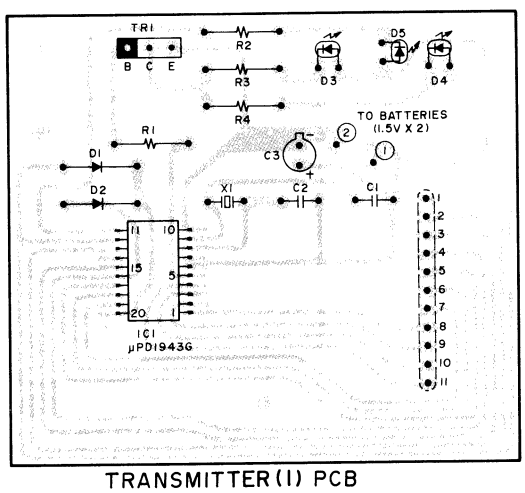
1) RECIVER (RC-R4) P.C BOARD



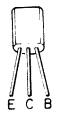
RECEIVER PCB

TRI 2SJ40

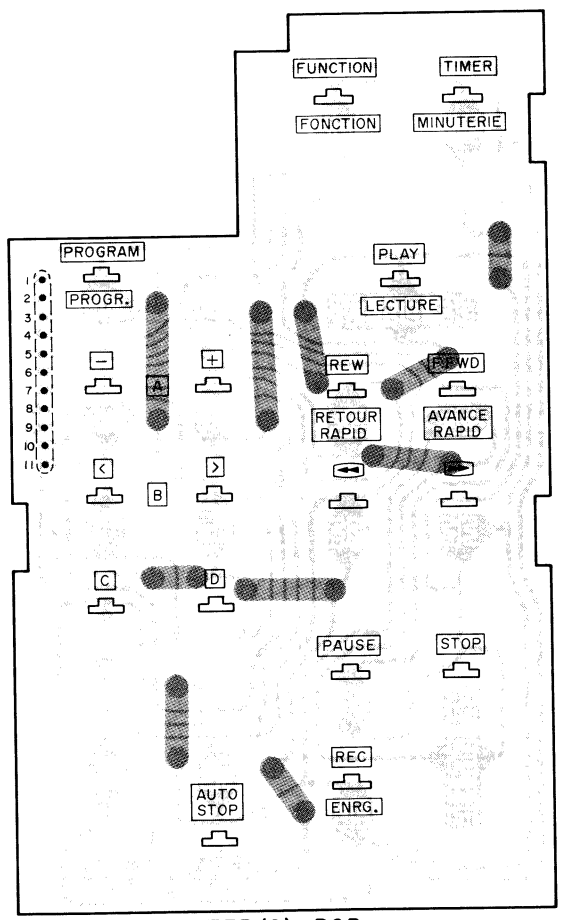
2) TRANSMITTER (RC-T4)



TRANSMITTER (1) PCB

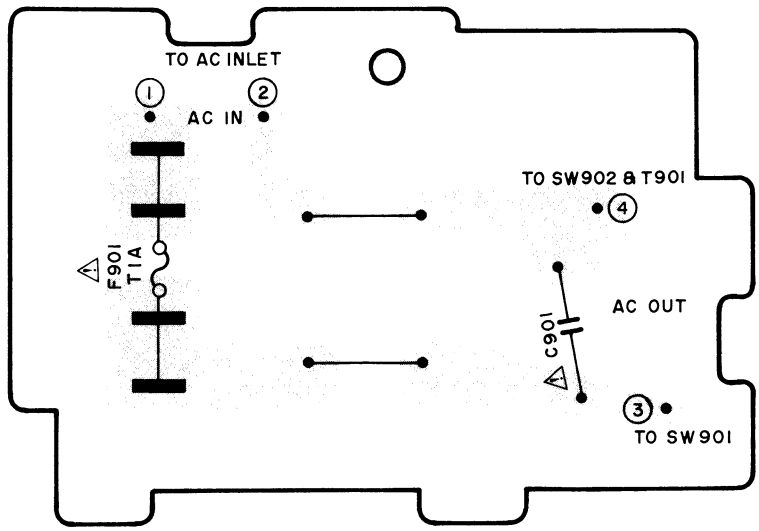


TRI 2SD545



TRANSMITTER (2) PCB

11-10. POWER FILTER P.C BOARD V1017D5060



POWER FILTER PCB V1017D5060

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

SECTION 3

PARTS LIST

TABLE OF CONTENTS

I. MODEL VS-1EG/EG-G/EO/EK
RECOMMENDED SPARE PARTS 83
1. HEAD DRUM BLOCK 84
2. MECHA FRAME BLOCK (1) 85
3. MECHA FRAME BLOCK (2) 86
4. EJECTOR ASSY 87
5. VIDEO P.C BOARD BLOCK 88
6. SERVO AND AUDIO P.C BOARD BLOCK 89
7. OPERATION P.C BOARD BLOCK 89
8. POWER SUPPLY AND SYSTEM CONTROL P.C BOARD BLOCK 89
9. MECHA DRIVE P.C BOARD BLOCK 90
10. DEMODULATOR P.C BOARD BLOCK 90
11. POWER FILTER P.C BOARD BLOCK 90
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13. FINAL ASSEMBLY BLOCK 92

II. REMOTE CONTROL UNIT RC-V404
1. TRANSMITTER RC-T4 93
2. RECEIVER RC-R4 93

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ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

b) P.C Board Block

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

This reference numbers corresponds with symbol numbers of Schematic Diagrams.

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

I. MODEL VS-1EG/EG-G/EO/EK

RECOMMENDED SPARE PARTS LIST

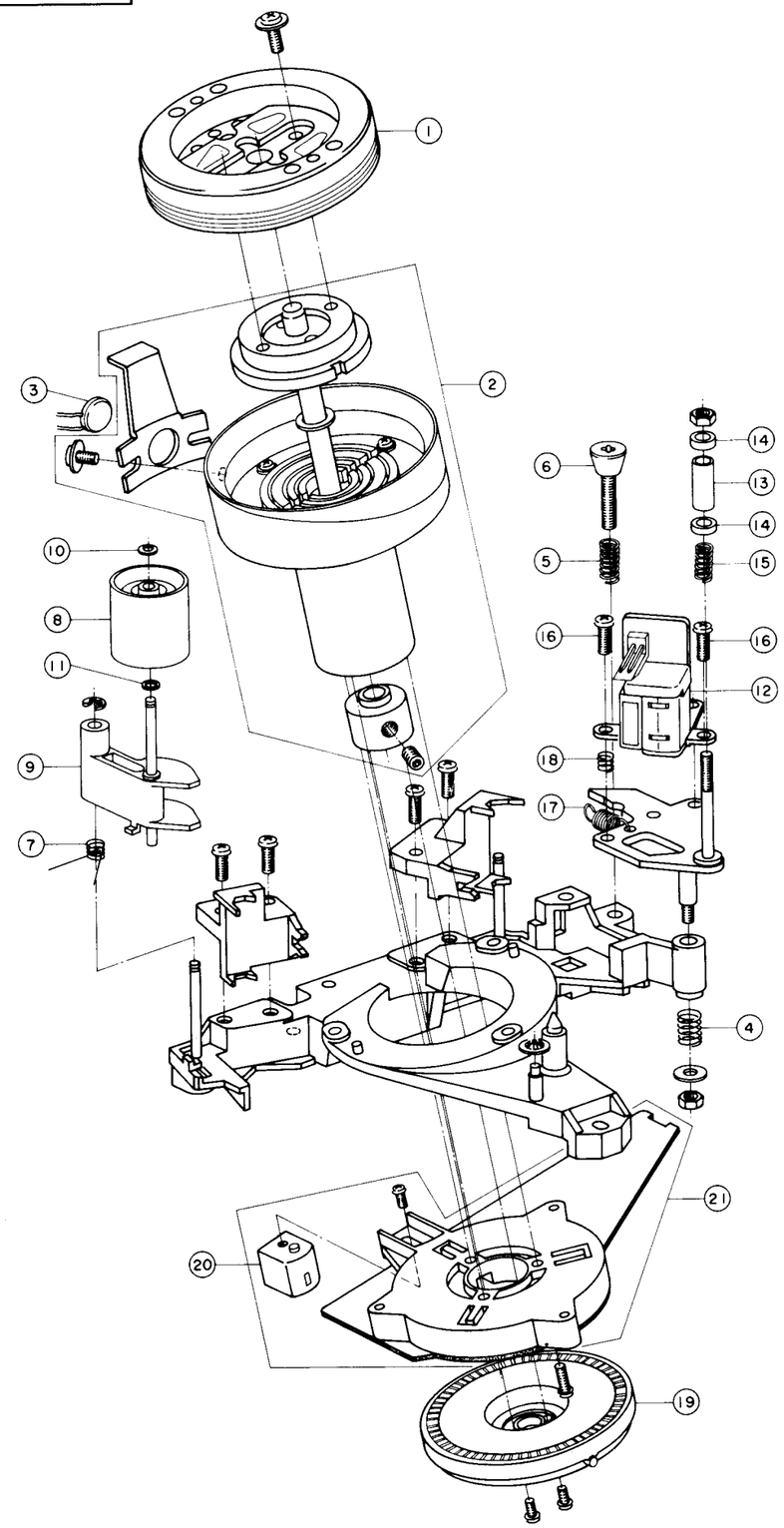
Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PARTS NO.	DESCRIPTION
1	BA-M3201A020A	PC DRIVE BLK BLM-400
2	BM-749896	L MOTOR SUB ASSY (3)
3	BM-349150	MOTER CAPSTAN VS-3
4	BM-348088	MOTOR MMN-5C2RP
5	BM-345265	MOTOR REEL MJB5B51
6	BM-B344824	ROTOR PART
7	BR-347732	SUPPLY REEL TABLE BLK
8	BR-347731	TU REEL TABLE BLK
9	BT-345135	⚠ TRANS POWER VS-4-1A (EXCEPT EK, EK-P)
10	BT-348518	⚠ TRANS POWER VS-4-2A (EK, EK-P)
11	BV-V1017A160A	LOWER DRUM BLK VS-4EG
12	BV-345124	RF MODULATOR MDW3-253 (EG, EG-G, EG-P, EG-GP)
13	BV-345125	RF MODULATOR MIW3-253 (EK, EK-P)
14	BV-345126	RF MODULATOR MSW3-253 (EO, EO-P)
15	BV-V1022A170A	UPPER DRUM BLK VS-1EG
16	EC-346765	C S-FIX H ECR-HA010A11 2.8-10
17	EC-346764	C S-FIX H ECR-HA020D11 4-20
18	EC-346887	C S-FIX H ECR-HA070M11 12-70
19	ED-337617	⚠ D SILICON DBB50C-K8 200/5.0A
20	ED-322238	⚠ D SILICON 1B4B41 100/1.0A
21	ED-347776	D LED BG5608S GRN
22	ED-347777	D LED BR5628S RED
23	ED-249377	D LED GL3AR1 RED
24	ED-283138	D LED GL3PG1 GRN
25	ED-347775	D LED SL2179-01 GRN
26	ED-337618	D SILICON DS135E-FB6 100/1.0A
27	ED-344280	D SILICON H GMA-01-FY2 F05
28	ED-337575	D SILICON H GMA-01-4-BT T26
29	ED-523427	D SILICON H 1SS16
30	ED-604541	D SILICON H 1S2076
31	ED-624903	D SILICON H 1S2473
32	ED-316143	D SILICON H 1S2473HS F10
33	ED-200468	D SILICON V DS448-VB6
34	ED-347767	D SILICON V MC911 DOUBLE
35	ED-347768	D SILICON V MC921 DOUBLE
36	ED-348205	D SILICON V MC931 DOUBLE
37	ED-705479	D SILICON 1SV70
38	ED-347899	D ZENER H HZ20CP
39	ED-346637	D ZENER H HZ3FA F10 C2
40	ED-331667	D ZENER H HZ7 A1
41	ED-346468	D ZENER H HZ9FA F10 B1
42	ED-337260	D ZENER V HZ7B-2S7
43	EE-345115	TV TUNER CDE1-A04 (EG, EG-G, EG-P, EG-GP)
44	EE-345116	TV TUNER CBE1-013 (EK, EK-P)
45	EE-345118	TV TUNER CEE1-009 (EO, EO-P)
46	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
47	EF-346880	⚠ FUSE ICP-F15 150V 0.6A
48	EF-668474	⚠ FUSE SEMKO T 250V 0.40A (F4)
49	EF-601942	⚠ FUSE SEMKO T 250V 0.63A (F3)
50	EF-623103	⚠ FUSE SEMKO T 250V 1.00A
51	EF-601301	⚠ FUSE SEMKO T 250V 2.00A (F2)
52	EF-691007	⚠ FUSE SEMKO T 250V 3.15A (F1)
53	EH-322365	DL EFD-EN645A11E
54	EH-337468	DL EFD-JR124A13D
55	EH-345114	FILTER BP LJ20BP 4.43MHz×0.3 4.43MC
56	EH-324339	FILTER LC AP LCB-56
57	EH-324375	FILTER LC BP LCB-57 4.43MHz
58	EH-325807	FILTER LC BP LCB-61 5.06MHz
59	EH-330465	FILTER LC DST310-55B271M
60	EH-324305	FILTER LC HP LCB-53
61	EH-324398	FILTER LC LP LCB-58
62	EH-324469	FILTER LC LP LCB-59
63	EH-348142	FILTER LP LJ25LP 3.4MHz×4
64	EH-345113	FILTER LP LJ25LP 3.4MHz×3
65	EI-347757	⚠ IC STK5325
66	EI-315243	⚠ IC TA78005P
67	EI-347758	⚠ IC TA78012AP
68	EI-336987	HALL ELEMENT DHD-H150
69	EI-347764	IC AN6307
70	EI-324204	IC AN6310
71	EI-347763	IC AN6326
72	EI-321604	IC AN6341N
73	EI-324203	IC AN6342N
74	EI-326044	IC AN6350
75	EI-324151	IC AN6360
76	EI-324160	IC AN6362
77	EI-324182	IC AN6371
78	EI-330352	IC BA6109
79	EI-347778	IC BA6209
80	EI-347733	IC DN6838
81	EI-322309	IC HA11703
82	EI-328593	IC HD14053BP
83	EI-347781	IC LA6393D
84	EI-347779	IC LA6393S
85	EI-347780	IC LA7045
86	EI-347766	IC MBL8243M
87	EI-337519	IC MB88301-A
88	EI-347773	IC MB88303M
89	EI-345133	IC MB88401-206M
90	EI-349121	IC MB88401-233K
91	EI-310183	IC MC14001BCP
92	EI-257602	IC MC14011BCP
93	EI-310038	IC MC14025BCP
94	EI-304475	IC MC14066BCP
95	EI-337228	IC M5218L0
96	EI-347769	IC M54514AP
97	EI-337503	IC M54532P
98	EI-347760	IC M54534P
99	EI-749829	IC M54573L
100	EI-307574	IC TA7060AP
101	EI-344921	IC TA7245BP
102	EI-705494	IC TA7607AP
103	EI-337529	IC TA78L005AP
104	EI-300834	IC TC4520BP
105	EI-749828	IC μPC1391H
106	EI-337530	IC μPC574J
107	EI-345279	OSC CE CSA4.00MS 4.00000MHz
108	EI-330256	OSC CE F85-006 4MHz
109	EI-347434	OSC X'TAL HC-18/U 4.194304MHz
110	EI-327364	OSC X'TAL HC-33/U 4.435571MHz
111	EI-309878	OSC X'TAL 4.433619MHz
112	EL-332451	PL CORD 12.0V 60MA
113	EP-345264	SOLENOID W/TAP 1240PLT 15V
114	ER-349173	⚠ R FUSE ERQ-1C 1W 5R6J
115	ES-347911	⚠ SW PUSH ESB-8213V 01-1 (SW901)
116	ES-309312	⚠ SW SLIDE 00220481 02-2 (SW902)
117	ES-348089	SW LEAF MSW-1429C 01-1 NO
118	ES-348090	SW LEAF MSW-1434C 02-1 NO
119	ES-318284	SW LEVER SCL101R23A 1-01-02N
120	ES-332384	SW MICRO SS-5-F
121	ES-347790	SW SLIDE 00120323 1-01-02 (EK, EK-P)
122	ES-349641	SW SLIDE 00230890 (9.3) 2-02-03 (EXCEPT EK, EK-P)
123	ES-347755	SW TACT EVQ-QSE05T
124	ET-318308	PHOTO SENSOR PN202S
125	ET-200479	TR 2SA1115 D, E, F
126	ET-351856	TR 2SA1282A E, F, G
127	ET-346806	TR 2SA1309 Q, R, S
128	ET-351857	TR 2SA1309 R, S
129	ET-337569	TR 2SA675A E, F, H
130	ET-200401	TR 2SB788 S, T, U
131	ET-522270	TR 2SC1210 D
132	ET-321644	TR 2SC1213 C
133	ET-306719	TR 2SC2236 O, Y
134	ET-330464	TR 2SC2603 D, E
135	ET-200480	TR 2SC2603 D, E, F
136	ET-200985	TR 2SC2603 F, G
137	ET-351858	TR 2SC3311 Q, R, S
138	ET-742646	TR 2SC388A
139	ET-332421	TR 2SD1010 R, S
140	ET-344999	TR 2SD1010 R, S, T
141	ET-200402	TR 2SD958 S, T, U
142	EV-307629	R S-FIX H H0621A 3P 0.30W 223
143	EV-336769	R S-FIX H H0621A 3P 0.30W 473
144	EV-336767	R S-FIX H H0621A 3P 0.30W 683
145	EV-307653	R S-FIX H H0651A 3P 0.05W 102
146	EV-307621	R S-FIX H H0651A 3P 0.05W 103
147	EV-307709	R S-FIX H H0651A 3P 0.05W 223
148	EV-346805	R S-FIX H H0811C309A 3P 222
149	EV-342939	R S-FIX H H0811C313A 3P 103
150	EV-336852	R S-FIX H KVSF807U 3P 102
151	EV-336853	R S-FIX H KVSF807U 3P 103
152	EV-336850	R S-FIX H KVSF807U 3P 202
153	EV-336847	R S-FIX H KVSF807U 3P 502
154	EV-341224	R S-FIX H KVSF807V 3P 201
155	EV-336851	R S-FIX H KVSF807V 3P 501
156	EV-346807	R S-FIX H KVSF817U 3P 104
157	EV-337957	R S-FIX H TM64K3 3P 0.30W 102
158	EV-702569	R S-FIX TT24R 102B
159	EV-702567	R S-FIX TT24R 202
160	EV-348413	R S-FIX V RVA0911 T3P 202
161	EV-749777	R S-FIX 502
162	EX-348203	POSISTER PTH4999D31BG500Q030
163	EX-330533	POSISTER PTH61G04BD3R3N
164	HC-347811	HEAD CTL HV225207SCD
165	HC-347163	HEAD PU TP306
166	MB-326474	BELT CAPSTAN
167	MB-780029	BELT LOADING
168	MP-604531	ROLLER PINCH VS-2 (NEW)

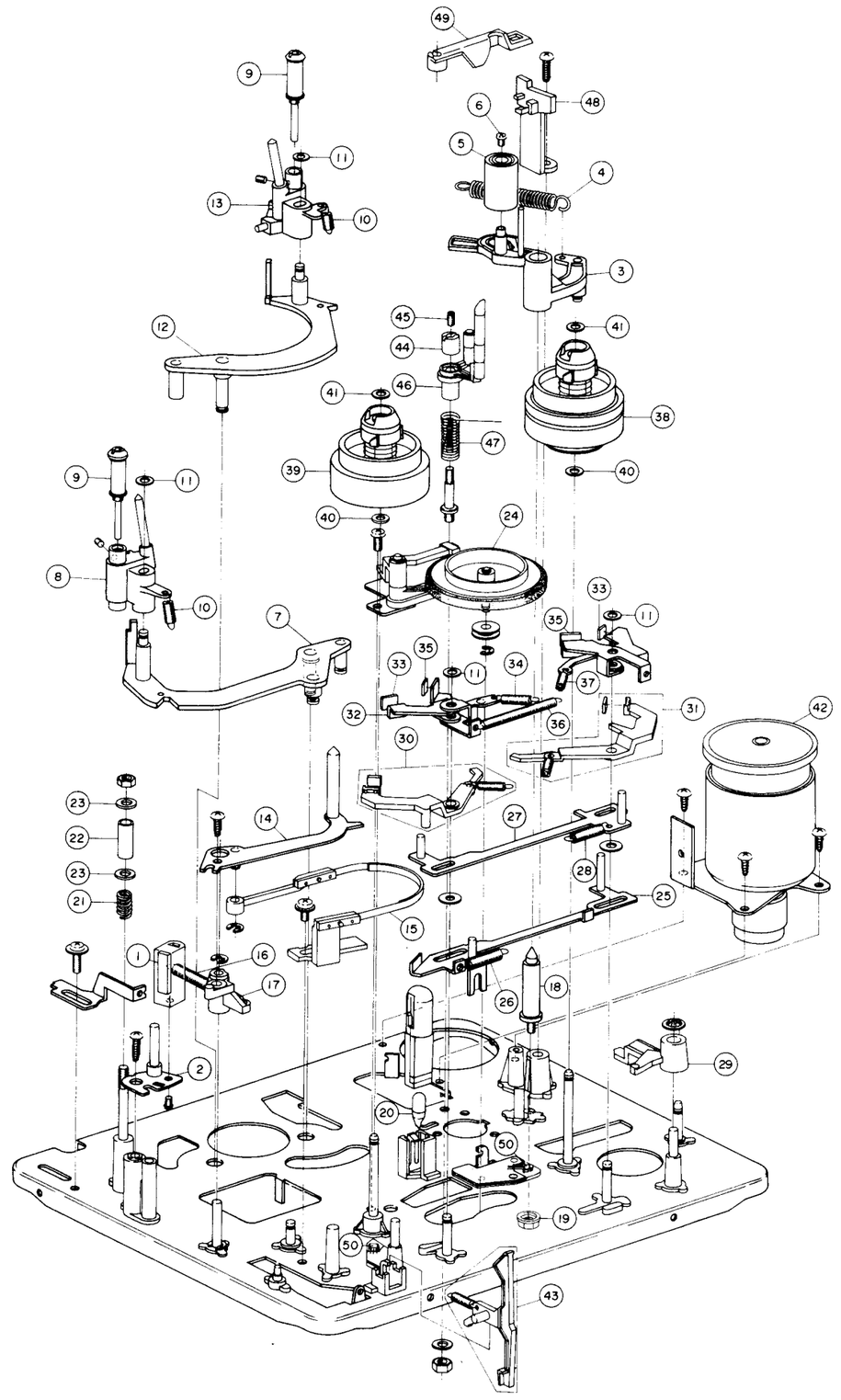
1. HEAD DRUM BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
	UPPER DRUM BLOCK	
1-1	BV-V1022A170A	UPPER DRUM BLK VS-1EG
	LOWER DRUM BLOCK	
1-2	BV-V1017A160A	LOWER DRUM BLK VS-4EG
	HEAD DRUM BLOCK	
1-3	ET-348203	POSISTER PTH4999D31BG500Q030
	DRUM BASE BLOCK	
1-4	ZG-331178	SP PUSH PRESS ACH
1-5	ZG-332979	SP PUSH CTL (B)
1-6	ZS-332978	SCREW ADJUST
1-7	ZG-327740	SP TORSION LZ
	ROLLER IMPEDANCE BLOCK	
1-8	MI-347812	ROLLER IMPEDANCE
1-9	BL-B327729	LEVER LZ PART
1-10	ZW-343120	PW17×040×025PSL
1-11	ZW-259334	PW2.05×035×025PSL
	A/C H BLOCK	
1-12	HC-347811	HEAD CTL HV225207SCD
1-13	HZ-343076	GUIDE TAPE (C)
1-14	HZ-342726	GUIDE TAPE (B)
1-15	ZG-328225	SP C-3.5/0.8-10.0G C-102G
1-16	ZS-380046	PAN30×10STL CMT
1-17	ZG-327757	SP PULL ACH SET
1-18	ZG-313257	SP C-3.5/0.8-8.0 C-101
	MOTOR BLM-400	
1-19	BM-B344824	ROTOR PART
	P.C DRIVE BLOCK	
1-20	HC-347163	HEAD PU TP306
1-21	BA-M3201A020A	PC DRIVE BLK BLM-400
1-IC	EI-344921	IC TA7245BP
1-IC1 to 3	EI-336987	HALL ELEMENT DHD-H150

HEAD DRUM BLOCK



MECHA FRAME BLOCK (1)



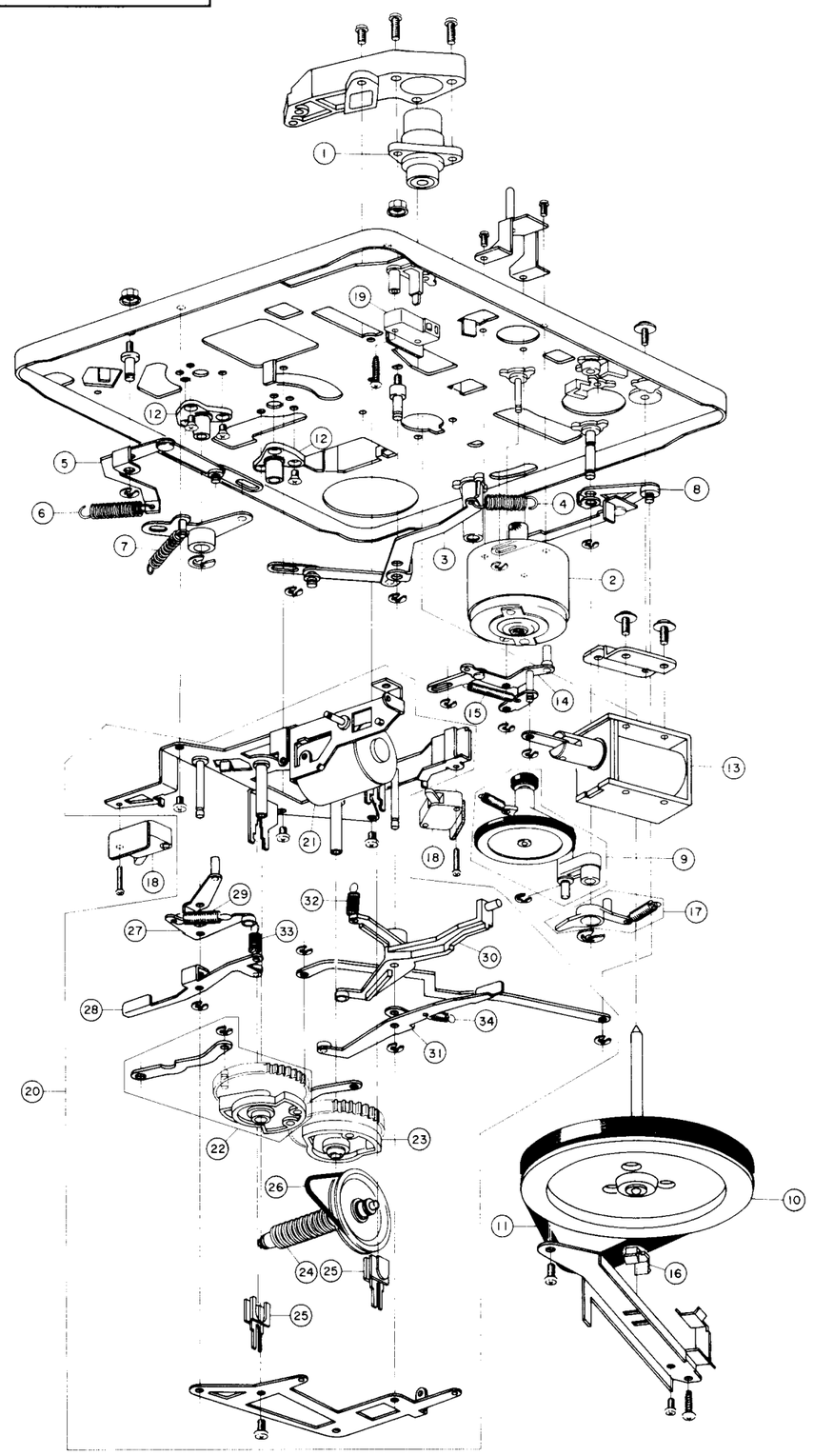
2. MECHA FRAME BLOCK (1)

REF. NO.	PARTS NO.	DESCRIPTION
2-X	BB-V1017A070B	MECHA FRAME ASSY VS-3EV
		HOLDER ERASE HEAD BLOCK
2-1	HE-325273	HEAD E HV113201 V
2-2	HZ-B321740	HOLDER EH PART
		LEVER PINCH ROLLER BLOCK
2-3	BL-B326296	LEVER PINCH ROLLER PART
2-4	ZG-342091	SP PULL PINCH ROLLER
2-5	MP-604531	ROLLER PINCH VS-2 (NEW)
2-6	ZS-477876	PAN20×03STL CMT
		LEVER LOADING (L) BLOCK
2-7	BL-B348989	LEVER LOADING (L) PART
2-8	VT-B319445	LOADING LEADER (L) PART
2-9	VT-317947	VERTICAL POLE PART (P)
2-10	ZG-318043	SP LEADER
2-11	ZW-344643	PW26×070×025PSL
		LEVER LOADING (R) BLOCK
2-12	BL-B348098	LEVER LOADING (R) PART
2-13	VT-B319446	LOADING LEADER (R) PART
		TENSION ARM BLOCK
2-14	BL-B326468	LEVER TENSION PART
2-15	VT-328134	TENSION BAND ASSY
2-16	ZG-328664	SP T2-4.0/0.4-35.5 T2-118
2-17	VT-326470	HOLDER TENSION LEVER
		MECHA FRAME BLOCK
2-18	MH-321688	PROP 9 PINCH ROLLER LEVER
2-19	ZS-609434	N FRANGE 30STL CMT
2-20	EL-332451	PL CORD 12.0V 60MA
2-21	ZG-328225	SP C-3.5/0.8-10.0G C-102G
2-22	HZ-343076	GUIDE TAPE (C)
2-23	HZ-342726	GUIDE TAPE (B)
2-24	MI-327773	IDLER ASSY
2-25	BL-B322090	LEVER BRAKE SLIDE (B) PART
2-26	ZG-313045	SP T1-5.0/0.55-25.0 T1-158
2-27	BL-B322027	LEVER BRAKE SLIDE (A) PART
2-28	ZG-332463	SP T2-3.2/0.29-20 T2-064
2-29	ML-330640	LEVER BRAKE RELEASER
2-30	BL-V1004A090A	LEVER FF BRAKE BLK VS-5EG
2-31	BL-V1004A100A	LEVER REW BRAKE BLK VS-5EG
2-32	VT-B322286	LEVER S LOADING BRAKE PART
2-33	VT-322159	SHEET BRAKE (A)
2-34	ZG-318204	SP T2-3.2/0.29-16 T2-062
2-35	VT-322203	SHEET BRAKE (B)
2-36	ZG-344132	SP PULL BRAKE
2-37	ZG-318228	SP T2-3.2/0.29-14 T2-061
2-38	BR-347731	TU REEL TABLE BLK
2-39	BR-347732	SUPPLY REEL TABLE BLK
2-40	ZW-324417	PW31×060×050PSL
2-41	ZW-344643	PW26×070×025PSL
2-42	BM-349150	MOTOR CAPSTAN VS-3
2-43	BL-V1004A170B	LEVER REC SAFETY BLK VS-4EG
2-44	ZS-326246	NUT ADJUST
2-45	ZS-328608	6SET26×030SCM PKR FP
2-46	BL-B326220	LEVER REVIEW PART
2-47	ZG-326247	SP TORSION REVIEW
2-48	VT-345031	HOLDER OPENER
2-49	VT-326477	GUIDE CAP
		HALL IC BLOCK
2-50	EI-347733	IC DN6838

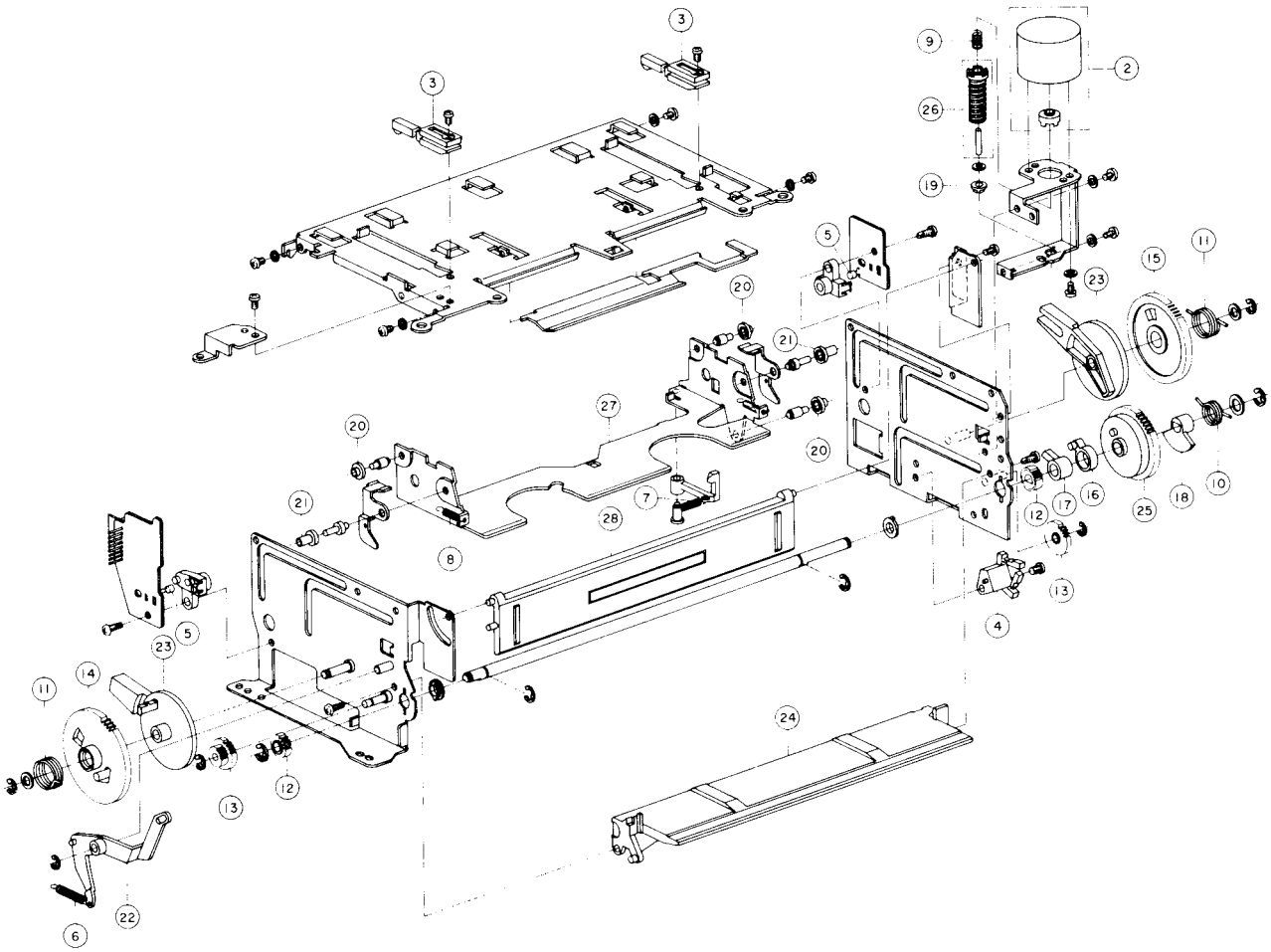
3. MECHA FRAME BLOCK (2)

REF. NO.	PARTS NO.	DESCRIPTION
	MECHA FRAME BLOCK	
3-1	MZ-B321701	HOLDER CAPSTAN PART
3-2	BM-345265	MOTOR REEL MJB5B51
3-3	BL-B326455	LEVER TOGGLE SP (B) PART
3-4	ZG-313085	SP T1-6.3/0.8-25.0 T1-197
3-5	BL-B326453	LEVER TOGGLE SP (A) PART
3-6	ZG-328610	SP T2-6.3/0.8-28 T2-198
3-7	ZG-321769	SP T2-5.0/0.55-35.5 T2-161
3-8	BL-B326464	LEVER ROLLING PART
3-9	BV-327815	TU IDLER ASSY
3-10	MI-B328611	FLYWHEEL PART
3-11	MB-326474	BELT CAPSTAN
3-12	MV-322302	METAL LOADING
	PLUNGER BLOCK	
3-13	EP-345264	SOLENOID W/TAP 1240PLT 15V
3-14	BL-B604437	LEVER PLUNGER PART
3-15	ZG-328661	SP T2-3.2/0.29-25 T2-066
	HOLDER FLYWHEEL BLOCK	
3-16	VT-326476	HOLDER PIVOT
	LEVER TU IDLER KICK BLOCK	
3-17	BV-V1004A220A	LEVER TU IDLER KICK BLK VS-5EG
	MECHA DRIVE P.C BOARD BLOCK	
3-18	ES-318284	SW LEVER SCL101R23A 1-01-02N (SW1)
3-19	ES-332384	SW MICRO SS-5-F (SW1)
	LOADING BLOCK	
3-20	BV-V1017A250A	LOADING BLK VS-4EG
3-21	BM-749896	L MOTOR SUB ASSY (3)
3-22	VT-780025	LOADING GEAR A ASSY
3-23	VT-780026	LOADING GEAR B SUB ASSY
3-24	VT-780027	LOADING WARM ASSY
3-25	VT-749898	HOLDER GEAR SHAFT
3-26	MB-780029	BELT LOADING
3-27	BL-780030	TENSION LEVER ASSY
3-28	BL-780031	SW LEVER A ASSY
3-29	ZG-780032	SP TENSION LEVER RETURN
3-30	BL-780033	BRAKE LEVER ASSY
3-31	BL-780034	SW LEVER B ASSY
3-32	ZG-780035	SP BRAKE LEVER
3-33	ZG-780039	SP SW A
3-34	ZG-780040	SP SW B

MECHA FRAME BLOCK (2)



EJECTOR ASSY



4. EJECTOR ASSY

REF. NO.	PARTS NO.	DESCRIPTION
4-1	BV-347813	EJECTOR ASSY
	EJECTOR ASSY	
4-2	BM-348088	MOTOR MMN-5C2RP
4-3	ES-348089	SW LEAF MSW-1429C 01-1 NO
4-4	ES-348090	SW LEAF MSW-1434C 02-1 NO
4-5	ET-318308	PHOTO SENSOR PN202S
4-6	ZG-312922	SP T1-3.2/0.2-10.0 T1-039
4-7	ZG-324331	SP T2-3.2/0.2-12.5 T2-041
4-8	ZG-312944	SP T1-3.2/0.29-12.5 T1-060
4-9	ZG-313212	SP C-6.5/0.6-12.5 C-057
4-10	ZG-749705	SP (A)
4-11	ZG-749695	SP (C)
4-12	ZG-749696	GEAR (A)
4-13	MZ-749692	GEAR (B)
4-14	MZ-749694	GEAR (C)
4-15	MZ-749715	GEAR (D)

REF. NO.	PARTS NO.	DESCRIPTION
4-16	MZ-749697	COLLAR BRAKE (A)
4-17	MZ-749698	COLLAR BRAKE (B)
4-18	MZ-749894	COLLAR BANANA
4-19	MZ-749895	COLLAR WARM
4-20	MR-749685	GUIDE ROLLER (A)
4-21	MR-749686	GUIDE ROLLER (C)
4-22	ML-749691	ARM COVER
4-23	ML-749693	ARM DRIVE
4-24	MZ-749855	GUIDE FRAME
4-25	MZ-749699	WARM WHEEL
4-26	MZ-749853	WARM PART
4-27	MZ-749640	HOLDER CASSETTE
	FINAL ASSEMBLY BLOCK	
4-28A	SP-349117A	MASK VS-4EG (EXCEPT EG-G, EG-GP)
4-28B	SP-349117B	MASK VS-4EG-G (EG-G, EG-GP)

5. VIDEO P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
5-1EG	BA-V1022A180A	PC VIDEO BLK VS-1EG (EG, EO, EG-P, EO-P)
5-1EK	BA-V1022A180B	PC VIDEO BLK VS-1EK (EK, EK-P)
5-1EG-G	BA-V1022A180D	PC VIDEO BLK VS-1EG-E (EG-G, EG-GP)
5-IC1	EI-324204	IC AN6310
5-IC2	EI-322309	IC HA11703
5-IC3	EI-324151	IC AN6360
5-IC4	EI-324160	IC AN6362
5-IC5	EI-324182	IC AN6371
5-IC6	EI-324203	IC AN6342N
5-IC7	EI-328593	IC HD14053BP
5-IC8	EI-310183	IC MC14001BCP
5-IC9	EI-310038	IC MC14025BCP
5-IC10	EI-347781	IC LA6393D
5-IC301	EI-347763	IC AN6326
5-IC302	EI-347764	IC AN6307
5-IC303	EI-307574	IC TA7060AP
5-IC304	EI-337529	IC TA78L005AP
5-TR1	ET-200985	TR 2SC2603 F, G
5-TR3	ET-200985	TR 2SC2603 F, G
5-TR5	ET-200985	TR 2SC2603 F, G
5-TR6	ET-200479	TR 2SA1115 D, E, F
5-TR7	ET-200985	TR 2SC2603 F, G
5-TR8, 9	ET-200479	TR 2SA1115 D, E, F
5-TR10	ET-200985	TR 2SC2603 F, G
5-TR11	ET-200479	TR 2SA1115 D, E, F
5-TR12, 13	ET-200985	TR 2SC2603 F, G
5-TR14	ET-321644	TR 2SC1213 C
5-TR15	ET-200985	TR 2SC2603 F, G
5-TR16	ET-200480	TR 2SC2603 D, E, F
5-TR17, 18	ET-200985	TR 2SC2603 F, G
5-TR19	ET-200479	TR 2SA1115 D, E, F
5-TR22	ET-200985	TR 2SC2603 F, G
5-TR28	ET-200479	TR 2SA1115 D, E, F
5-TR29	ET-200985	TR 2SC2603 F, G
5-TR30	ET-332421	TR 2SD1010 R, S
5-TR31	ET-200479	TR 2SA1115 D, E, F
5-TR32	ET-200985	TR 2SC2603 F, G
5-TR33	ET-200479	TR 2SA1115 D, E, F
5-TR34 to 39	ET-200985	TR 2SC2603 F, G
5-TR40	ET-200480	TR 2SC2603 D, E, F (EXCEPT EK, EK-P)
5-TR41, 42	ET-200985	TR 2SC2603 F, G
5-TR44	ET-200985	TR 2SC2603 F, G
5-TR301 to 315	ET-200985	TR 2SC2603 F, G
5-D1	ED-337575	D SILICON H GMA-01-4-BT T26
5-D3, 4	ED-523427	D SILICON H 1SS16
5-D5	ED-200468	D SILICON V DS448-VB6 (EG-G, EG-GP)
5-D8, 9	ED-337575	D SILICON H GMA-01-4-BT T26
5-D11 to 14	ED-337575	D SILICON H GMA-01-4-BT T26
5-D15	ED-200468	D SILICON V DS448-VB6 (EXCEPT EK, EK-P)
5-D17 to 19	ED-337575	D SILICON H GMA-01-4-BT T26
5-D22,23	ED-523427	D SILICON H 1SS16
5-WD1 to 4	ED-347768	D SILICON V MC921 DOUBLE
5-SW1EG	ES-349641	SW SLIDE 00230890 (9.3) 2-02-03 (EXCEPT EK, EK-P)
5-SW1EK	ES-347790	SW SLIDE 00120323 1-01-02 (EK, EK-P)
5-VR1	EV-336847	R S-FIX H KVSF807U 3P 502
5-VR2	EV-336851	R S-FIX H KVSF807V 3P 501
5-VR3, 4	EV-336847	R S-FIX H KVSF807U 3P 502
5-VR5	EV-336852	R S-FIX H KVSF807U 3P 102
5-VR6	EV-336847	R S-FIX H KVSF807U 3P 502
5-VR7	EV-336852	R S-FIX H KVSF807U 3P 102
5-VR8	EV-336853	R S-FIX H KVSF807U 3P 103
5-VR9	EV-337957	R S-FIX H TM64K3 3P 0.30W 102
5-VR10	EV-341224	R S-FIX H KVSF807V 3P 201
5-VR11	EV-336850	R S-FIX H KVSF807U 3P 202
5-VR12	EV-336852	R S-FIX H KVSF807U 3P 102
5-VR13	EV-348413	R S-FIX V RVA0911 T3P 202
5-VR301	EV-336851	R S-FIX H KVSF807V 3P 501
5-L1	EO-330245	COIL FIX 1 EL0606SKI 100K
5-L2	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L3	EO-330249	COIL FIX 1 EL0606SKI 8R2K
5-L4,5	EO-330248	COIL FIX 1 EL0606SKI 330K
5-L6, 7	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L8	EO-345870	COIL FIX 1 EL0606SKI 150K
5-L9	EO-330245	COIL FIX 1 EL0606SKI 100K
5-L10	EO-330246	COIL FIX 1 EL0606SKI 560K
5-L11, 12	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L13	EO-330251	COIL FIX 1 EL0606SKI 471K
5-L14	EO-330246	COIL FIX 1 EL0606SKI 560K
5-L15	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L16	EO-318383	COIL FIX 1 FL07H 682J
5-L17	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L18	EO-330252	COIL FIX 1 EL0606SKI 101K
5-L19	EO-330240	COIL FIX 1 EL0606SKI 470K
5-L20	EO-330246	COIL FIX 1 EL0606SKI 560K
5-L21	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L22	EO-345867	COIL FIX 1 EL0606SKI 120K
5-L23, 24	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L301	EO-243977	COIL FIX 1 EL07H 102J
5-L302	EO-345866	COIL FIX 1 EL0606SKI 120J
5-L303	EO-330245	COIL FIX 1 EL0606SKI 100K
5-L304	EO-345881	COIL FIX 1 EL0606SKI 101J
5-L305	EO-345893	COIL FIX 1 EL0606SKI 471J
5-L306, 307	EO-330249	COIL FIX 1 EL0606SKI 8R2K
5-L308	EO-345872	COIL FIX 1 EL0606SKI 220J
5-L309	EO-345866	COIL FIX 1 EL0606SKI 120J
5-L310	EO-330245	COIL FIX 1 EL0606SKI 100K
5-L311	EO-330255	COIL FIX 1 EL0606SKI 180K
5-L312	EO-345872	COIL FIX 1 EL0606SKI 220J
5-L314, 315	EO-330241	COIL FIX 1 EL0606SKI 221K
5-L316	EO-345881	COIL FIX 1 EL0606SKI 101J
5-L317	EO-345874	COIL FIX 1 EL0606SKI 330J
5-L318	EO-345861	COIL FIX 1 EL0606SKI 3R3K
5-FL1	EH-324305	FILTER LC HP LCB-53
5-FL2	EH-345113	FILTER LP LJ25LP3.4MHz×3
5-FL3	EH-324339	FILTER LC AP LCB-56 (EXCEPT EK, EK-P)
5-FL4	EH-348142	FILTER LP LJ25LP 3.4MHz×4
5-FL5	EH-324469	FILTER LC LP LCB-59
5-FL6	EH-324375	FILTER LP BP LCB-57 4.43MHz
5-FL7	EH-345114	FILTER BP LJ20BP 4.43MHz×0.3 4.43MC
5-FL8	EH-324398	FILTER LC LP LCB-58
5-FL9	EH-325807	FILTER LC BP LCB-61 5.06MHz
5-DL1	EH-337468	DL EFD-JR124A13D
5-DL301	EH-322365	DL EFD-EN645A11E
5-X1	EI-309878	OSC X'TAL 4.433619MHz
5-X2	EI-327364	OSC X'TAL HC-33/U 4.435571MHz
5-VC1	EC-346764	C S-FIX H ECR-HA020D11 4-20
5-VC2, 3	EC-346765	C S-FIX H ECR-HA010A11 2.8-10
5-VC301, 302	EC-346887	C S-FIX H ECR-HA070M11 12-70
5-C87	EC-200949	C EC V F05 NP SM 470M 10DC
5-C94	EC-337793	C MY V F05 AMZ 182J 50DC
5-C96	EC-332052	C EC V F05 NP SM 4R7M 35DC
5-JA	EJ-347787	JACK PLATE VS-4AUDIO T5896 (PIN JACK)
5-JV	EJ-347788	JACK PLATE VIDEO YKC 21-5055 (PIN JACK)

6. SERVO AND AUDIO P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-V1022A190A	PC SERVO AUDIO BLK VS-1EG
6-IC1	EI-326044	IC AN6350
6-IC2	EI-304475	IC MC14066BCP
6-IC3	EI-337228	IC M52180L0
6-IC4, 5	EI-257602	IC MC14011BCP
6-IC6	EI-310183	IC MC14001BCP
6-IC7	EI-347778	IC BA6209
6-IC8	EI-321604	IC AN6341N
6-IC9	EI-300834	IC TC4520BP
6-IC10, 11	EI-347779	IC LA6393S
6-IC201	EI-347780	IC LA7045
6-TR1	ET-200985	TR 2SC2603 F, G
6-TR3	ET-200479	TR 2SA1115 D, E, F
6-TR4 to 6	ET-200985	TR 2SC2603 F, G
6-TR7	ET-200479	TR 2SA1115 D, E, F
6-TR8 to 10	ET-200985	TR 2SC2603 F, G
6-TR11	ET-200479	TR 2SA1115 D, E, F
6-TR12, 13	ET-200985	TR 2SC2603 F, G
6-TR201, 202	ET-200402	TR 2SD958 S, T, U
6-TR203	ET-200401	TR 2SB788 S, T, U
6-TR206	ET-200985	TR 2SC2603 F, G
6-TR208, 209	ET-200985	TR 2SC2603 F, G
6-TR210	ET-344999	TR 2SD1010 R, S, T
6-D1	ED-348205	D SILICON V MC931 DOUBLE
6-D3	ED-347768	D SILICON V MC921 DOUBLE
6-D4	ED-347767	D SILICON V MC911 DOUBLE
6-D6 to 12	ED-337575	D SILICON H GMA-01-4-BT T26
6-D201	ED-331667	D ZENER H HZ7 A1
6-VR1	EV-336769	R S-FIX H H0621A 3P 0.30W 473
6-VR2	EV-336767	R S-FIX H H0621A 3P 0.30W 683
6-VR3, 4	EV-336769	R S-FIX H H0621A 3P 0.30W 473
6-VR5	EV-307629	R S-FIX H H0621A 3P 0.30W 223
6-VR6	EV-307621	R S-FIX H H0651A 3P 0.05W 103
6-VR7	EV-307709	R S-FIX H H0651A 3P 0.05W 223
6-VR8	EV-307621	R S-FIX H H0651A 3P 0.05W 103
6-VR208	EV-346807	R S-FIX H KVSF817U 3P 104
6-VR209	EV-346805	R S-FIX H H0811C309A 3P 222
6-VR210, 211	EV-342939	R S-FIX H H0811C313A 3P 103
6-L1, 2	EO-669273	COIL FIX 2 FL5R200 180
6-L202	EO-243977	COIL FIX 1 FL07H 102J
6-L204	EO-321254	COIL FIX 1 FL07H 562J
6-FL1, 2	EH-330465	FILTER LC DST310-55B271M
6-FL201	EO-347785	COIL VARI 1 15.6kHz
6-FL202, 203	EO-347786	COIL VARI 1 70kHz
6-OSC1	EO-347791	COIL OSC 1 0512033
6-FR55	ER-349173	⚠ R FUSE ERQ-1C 1W 5R6J
6-R8	ER-346779	R MF V CUT 1/4W 7502F
6-R26	ER-338215	R MF H T26 1/8W 6202F
6-R27	ER-346780	R MF V CUT 1/4W 6800F
6-R28	ER-349037	R MF V CUT 1/4W 1001F
6-R62	ER-346791	R MF V CUT 1/4W 1803F
6-C209	EC-325054	C STY V T05 500 331J 50DC

7. OPERATION P.C BOARD BLOCK

7-1EG	BA-V1022A060A	PC OPERATION BLK VS-1EG (EG, EG-G, EG-P,EG-GP)
7-1EK	BA-V1022A060B	PC OPERATION BLK VS-1EK (EK, EK-P)
7-1EO	BA-V1022A060D	PC OPERATION BLK VS-1EO (EO, EO-P)

OPERATION P.C BOARD

7-IC2	EI-347773	IC MB88303M
7-IC3	EI-349121	IC MB88401-233K
7-TR1	ET-200479	TR 2SA1115 D, E, F
7-TR2	ET-200479	TR 2SA1115 D, E, F (EO, EO-P)
7-TR3, 4	ET-200479	TR 2SA1115 D, E, F
7-D1 to 5	ED-624903	D SILICON H 1S2473
7-D7, 8	ED-316143	D SILICON H 1S2473HS F10
7-D9	ED-523427	D SILICON H 1SS16
7-D12	ED-347776	D LED BG5608S GRN
7-D13	ED-249377	D LED GL3AR1 RED
7-D14	ED-347776	D LED BG5608S GRN
7-D15	ED-347777	D LED BR5628S RED
7-D16	ED-249377	D LED GL3AR1 RED
7-D17, 18	ED-347777	D LED BR5628S RED
7-D19	ED-283138	D LED GL3PG1 GRN
7-D20	ED-249377	D LED GL3AR1 RED
7-SW1 to 20	ES-347755	SW TACT EVQ-QSE05T
7-SW22, 23	ES-347755	SW TACT EVQ-QSE05T
7-VR1	EV-307653	R S-FIX H H0651A 3P 0.05W 102
7-X1	EI-330256	OSC CE F85-006 4MHz
7-IB1	EH-347736	COMP R RKC 1/8 B15 4.7K J
7-IB2	EH-347737	COMP R RKC 1/8 B16 4.7K J

LED P.C BOARD

7-D10	ED-347775	D LED SL2179-01 GRN

8. POWER SUPPLY AND SYSTEM CONTROL P.C BOARD BLOCK

8-1EG	BA-V1017A050A	PC POWER SYSCON BLK VS-4EG (EXCEPT EO, EO-P)
8-1EO	BA-V1017A050B	PC POWER SYSCON BLK VS-4EO (EO, EO-P)
8-IC1	EI-347757	⚠ IC STK5325
8-IC2	EI-347758	⚠ IC TA78012AP
8-IC3	EI-337530	IC μPC574J
8-IC4	EI-315243	⚠ IC TA78005P
8-IC5	EI-345133	IC MB88401-206M
8-IC6	EI-257602	IC M14011BCP
8-IC7	EI-337519	IC MB88301-A
8-IC8	EI-347760	IC M54534P
8-IC9	EI-347779	IC LA6393S
8-TR1	ET-337569	TR 2SA675A E, F, H
8-TR2	ET-306719	TR 2SC2236 O, Y
8-TR3 to 5	ET-200985	TR 2SC2603 F, G
8-TR6	ET-200479	TR-2SA1115 D, E, F
8-TR7	ET-344999	TR 2SD1010 R, S, T
8-TR8	ET-200985	TR 2SC2603 F, G
8-TR9	ET-306719	TR 2SC2236 O, Y
8-TR10, 11	ET-200985	TR-2SC2603 F, G
8-TR12	ET-200479	TR 2SA1115 D, E, F
8-TR13 to 15	ET-351856	TR 2SA1282A E, F, G
8-TR16 , 17	ET-200985	TR 2SC2603 F, G
8-D1	ED-337618	D SILICON DS135E-FB6 100/1.0A
8-D2, 3	ED-624903	D SILICON H 1S2473
8-D4	ED-337617	⚠ D SILICON DBB50C-K8 200/5.0A
8-D5	ED-322238	⚠ D SILICON 1B4B41 100/1.0A
8-D6	ED-337618	D SILICON DS135E-FB6 100/1.0A
8-D7	ED-346468	D ZENER H HZ9FA F10 B1
8-D8 to 12	ED-624903	D SILICON H 1S2473
8-D13, 14	ET-351856	TR 2SA1282A E, F, G
8-D15	ET-351856	TR 2SA1282A E, F, G
8-D17 to 19	ED-624903	D SILICON H 1S2473
8-X1	EI-345279	OSC CE CSA4.00MS 4.00000MHz
8-X2	EI-347434	OSC X'TAL HC-18/U 4.194304MHz
8-TH1	EX-330533	POSISTER PTH61G04BD3R3N
8-SF5, 6	EF-346880	⚠ FUSE ICP-F15 150V 0.6A
8-SF8	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
8-IB1	EH-347743	COMP R RKC 1/8 B4 10K J
8-IB2	EH-347744	COMP R M-3725
8-R34, 35	ER-337563	R MF H F10 1/4W 4751F
8-R36	ER-348233	R MF H F10 1/4W 2371F
8-C38	EC-345111	C TT V EF 1R5M 50DC
8-F1	EF-691007	⚠ FUSE SEMKO T 250V 3.15A
8-F2	EF-601301	⚠ FUSE SEMKO T 250V 2.00A
8-F3	EF-601942	⚠ FUSE SEMKO T 250V 0.63A
8-F4	EF-668474	⚠ FUSE SEMKO T 250V 0.40A

SLEEP P.C BOARD

8-TR1B	ET-328578	TR 2SC2320 E, F
8-D1B	ED-321115	D SILICON H 1S1588LB F10

9. MECHA DRIVE P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
9-1	BA-V1017A200B	PC MECHA DRIVE BLK VS-1EG
9-IC1	EI-347766	IC MBL8243M
9-IC2	EI-347769	IC M54514AP
9-IC3	EI-337503	IC M54532P
9-IC4 to 6	EI-330352	IC BA6109
9-TR1 to 3	ET-346806	TR 2SA1309 Q, R, S
9-TR4	ET-351858	TR 2SC3311 Q, R, S
9-TR6	ET-351858	TR 2SC3311 Q, R, S
9-TR7	ET-351856	TR 2SA1282A E, F, G
9-TR8	ET-351857	TR 2SA1309 R, S
9-TR9	ET-346806	TR 2SA1309 Q, R, S
9-D1, 2	ED-624903	D SILICON H 1S2473
9-D3, 4	ED-344280	D SILICON H GMA-01-FY2 F05
9-D5	ED-347899	D ZENER H HZ20CP
9-D6	ED-624903	D SILICON H 1S2473
9-D7	ED-347767	D SILICON V MC911 DOUBLE
9-D8	ED-347768	D SILICON V MC921 DOUBLE
9-D9	ED-344280	D SILICON H GMA-01-FY2 F05
9-D10	ED-346637	D ZENER H HZ3FA F10 C2
9-D11	ED-347768	D SILICON V MC921 DOUBLE
9-D14	ED-344280	D SILICON H GMA-01-FY2 F05
9-D15	ED-624903	D SILICON H 1S2473
9-D16	ED-337260	D ZENER V HZ7B-2S7
9-D17, 18	ED-344280	D SILICON H GMA-01-FY2 F05
9-TH1	EX-330533	⚠ POSISTER PTH61G04BD3R3N
9-IB1	EH-347735	COMP R M-3724
9-R12	ER-338480	R MF H T26 1/6W 1001F
9-R34	ER-306127	R CB H S15 FS RDS 1/2W 681J
9-R36	ER-351894	R CT P SNP 7W 150K

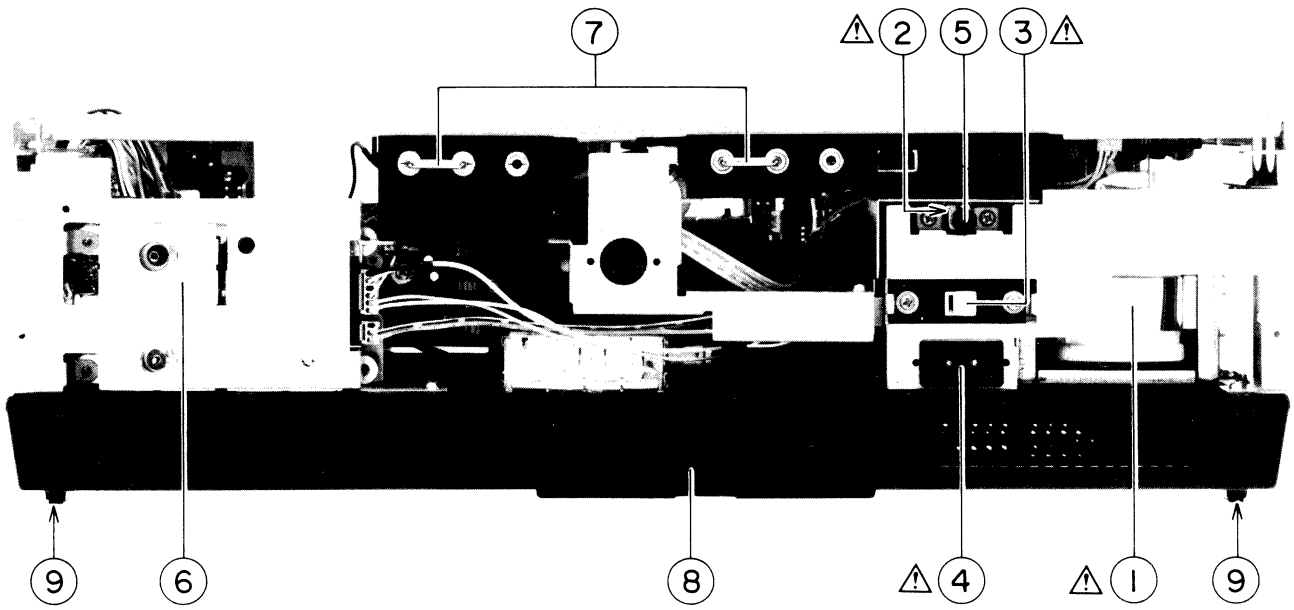
10. DEMODULATOR P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
10-1EG	BA-V1017A260A	PC DE-MODULATOR BLK VS-4EG (EG, EG-G, EG-P, EG-GP)
10-1EK	BA-V1017A260B	PC DE-MODULATOR BLK VS-4EK (EK, EK-P)
10-1EO	BA-V1017A260D	PC DE-MODULATOR BLK VS-4EO (EO, EO-P)
10-2EG	EE-345115	TV TUNER CDE1-A04 (EG, EG-G, EG-P, EG-GP)
10-2EK	EE-345116	TV TUNER CBE1-013 (EK, EK-P)
10-2EO	EE-345118	TV TUNER CEE1-009 (EO, EO-P)
10-IC1	EI-705494	IC TA7607AP
10-IC2	EI-749828	IC μPC1391H
10-IC3	EI-749829	IC M54573L (EXCEPT EK, EK-P)
10-Q1	ET-742646	TR 2SC388A
10-Q2 to 4	ET-330464	TR 2SC2603 D, E
10-Q5	ET-522270	TR 2SC1210 D
10-Q6	ET-307997	TR 2SA1115 D, E
10-Q7	ET-330464	TR 2SC2603 D, E
10-Q8	ET-307997	TR 2SA1115 D, E
10-Q9 to 11	ET-330464	TR 2SC2603 D, E
10-Q12	ET-307997	TR 2SA1115 D, E (EO, EO-P)
10-Q13	ET-330464	TR 2SC2603 D, E
10-D1	ED-604541	D SILICON H 1S2076
10-D2	ED-604541	D SILICON H 1S2076 (EXCEPT EK, EK-P)
10-D3	ED-604541	D SILICON H 1S2076 (EXCEPT EK, EK-P)
10-D4	ED-705479	D SILICON 1SV70
10-D5 to 7	ED-604541	D SILICON H 1S2076
10-VR1	EV-749777	R S-FIX 502
10-VR2	EV-749777	R S-FIX 502 (EXCEPT EK, EK-P)
10-VR3	EV-702567	R S-FIX TT24R 202
10-VR4	EV-702569	R S-FIX TT24R 102B
10-L1	EO-707836	COIL FIX 1 144LZ 0.39μH K
10-L2EG	EO-742653	COIL RF 144LY 2.0μH K (EXCEPT EK, EK-P)
10-L2EK	EO-742654	COIL RF 144LY 2.2μH K (EK, EK-P)
10-L3	EO-749830	COIL RF 199KNAS-12593Z
10-L4	EO-742574	COIL RF P320190
10-L5	EO-705491	COIL TKXNS-279789NK
10-L6	EO-749833	COIL FIX LRL06 820K
10-L7, 8	EO-749834	COIL FIX LRL06 120K
10-L9	EO-749835	COIL FIX LRL06 101K
10-L10EG	EO-749834	COIL FIX LRL06 120K (EXCEPT EK, EK-P)
10-L10EK	EO-749836	COIL FIX LRL06 100K (EK, EK-P)
10-L12	EO-749837	COIL FIX LRL06 330K
10-CF1EG	EH-742662	FILTER SAW SAF38.9MZ51Z (EXCEPT EK, EK-P)
10-CF1EK	EH-742664	FILTER SAW SAF39.5MZ51Z (EK, EK-P)
10-CF2EG	EH-749839	FILTER CE TPS 5.5MD (EXCEPT EK, EK-P)
10-CF2EK	EH-749840	FILTER CE TPS 6.0MD (EK, EK-P)
10-CF3EG	EH-705499	FILTER CE SFE 5.5MHz (EXCEPT EK, EK-P)
10-CF3EK	EH-705500	FILTER CE SFE 6MHz (EK, EK-P)
10-CF4EG	EH-749841	FILTER CE 5.5MC19A (EXCEPT EK, EK-P)
10-CF4EK	EH-749842	FILTER CE 6.0MC19A (EK, EK-P)
10-R44	ER-742497	⚠ R FUSE 1/4W 220J
10-R54, 55	ER-749775	R MF RNL 1/4W 4571F
10-R56	ER-749776	R MF RNL 1/4W 2401F
10-C20	EC-749821	C TT R47M 35V
10-C28	EC-749822	C EC 102M 10V
10-C33	EC-749823	C PP 1H 153J 50DC
10-C39	EC-749824	C PP 1H 683K 50DC
10-C41 to 44	EC-749825	C PP 1H 683J 50DC
10-C45	EC-749826	C TT R68M 35V
10-C51	EC-749827	C PP 1H 103K 50DC (EO, EO-P)

11. POWER FILTER P.C BOARD BLOCK

11-F901	EF-623103	⚠ FUSE SEMKO T 250V 1.00A
11-C901	EC-338411	⚠ C CE V FZ 103P 400AC

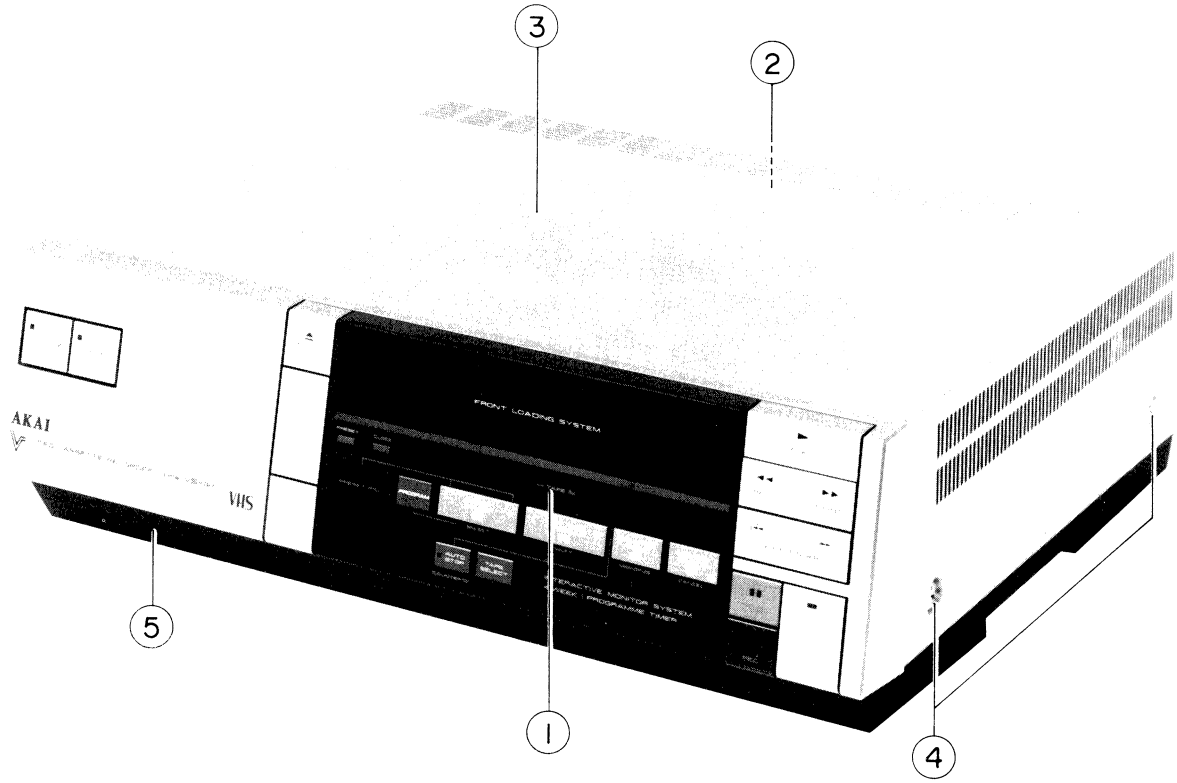
POWER AND RF BLOCK



12. POWER AND RF BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
	POWER TRANS BLOCK	
12-1EG	BT-345135	⚠ TRANS POWER VS-4-1A (EXCEPT EK, EK-P)
12-1EK	BT-348518	⚠ TRANS POWER VS-4-2A (EK, EK-P)
12-2	ES-347911	⚠ SW PUSH ESB-8213V 01-1 (SW901)
12-3	ES-309312	⚠ SW SLIDE 00220481 02-2 (SW902)
12-4	EJ-301513	⚠ SOCKET INLET S-I6453 E 2P (J901)
12-5	SK-5312345	KNOB PUSH SW
	RF BOOSTER BLOCK	
12-6EG	BV-345124	RF MODULATOR MDW3-253 (EG, EG-G, EG-P, EG-GP)
12-6EK	BV-345125	RF MODULATOR MIW3-253 (EK, EK-P)
12-6EO	BV-345126	RF MODULATOR MSW3-253 (EO, EO-P)
12-7	EJ-348218	PLUG SHORT PIN P2138
12-8	SP-343189	HOLDER BATTERY
	CHASSIS MAIN BLOCK	
12-9	SA-345057	RUBBER FOOT

FINAL ASSEMBLY BLOCK



13. FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
13-1A	BD-B348310E	PANEL FRONT VS-1EG PART
13-1B	BD-B348310G	PANEL FRONT VS-1EG-G PART
13-1C	BD-B348310M	PANEL FRONT VS-1EK PART
13-1D	BD-B348310F	PANEL FRONT VS-1EO PART
13-1E	BD-B348310N	PANEL FRONT VS-1EO-P PART
13-1F	BD-B348310S	PANEL FRONT VS-1EG-P PART
13-1G	BD-B348310T	PANEL FRONT VS-1EG-GP PART
13-1H	BD-B348310U	PANEL FRONT VS-1EK-P PART
13-2A	SP-345055V	PANEL REAR VS-1EG (EG, EG-P)
13-2B	SP-345055W	PANEL REAR VS-1EG-G (EG-G, EG-GP)
13-2C	SP-345055U	PANEL REAR VS-1EK (EK, EK-P)
13-2D	SP-345055X	PANEL REAR VS-1EO (EO, EO-P)
13-3	SP-345054	CASE UPPER (EG, EG-G, EK, EO)
13-3P	SP-345054C	CASE UPPER EO-P (EG-P, EG-GP, EK-P, EO-P)
13-4	ZS-321783	ST BID40×10STL NI3
13-5	SP-343188	COVER FRONT JACK
13-6xA	EW-638144	⚠ AC CORD 2 CORES VM0364/VM0305 EV (EXCEPT EK, EK-P)
13-6xB	EW-302995	⚠ AC CORD 2 CORES VM0112/OCFL B (EK, EK-P)
13-7x	AV-V1017A330A	BATTERY PACK BLK VS-4EG

II. REMOTE CONTROL UNIT RC-V404

1. TRANSMITTER RC-V404

REF. NO.	PARTS NO.	DESCRIPTION
1-1E	AV-749976	TRANSMITTER RC-T4-E (ENGLISH) (SILVER)
1-1G	AV-749992	TRANSMITTER RC-T4-G (GERMAN) (SILVER)
1-1EM	AV-749987	TRANSMITTER RC-T4-EM (ENGLISH) (GOLD)
1-1EP	AV-749989	TRANSMITTER RC-T4-EP (ENGLISH) (PEARL SHADOW)
1-1GP	AV-712539	TRANSMITTER RC-T4-GP (GERMAN) (PEARL SHADOW)
1-1F	AV-749995	TRANSMITTER RC-T4-F (FRENCH)
1-2S	AV-749977	COVER BATTERY S (SILVER)
1-2P	AV-712540	COVER BATTERY P (PEARL SHADOW)
1-2G	AV-712542	COVER BATTERY G (GOLD)
1-3S	AV-749978	RUBBER BUTTON SHEET CONTACT-ENGLISH (SILVER)
1-3P	AV-749988	RUBBER BUTTON SHEET CONTACT-ENGLISH (PEARL SHADOW, GOLD)
1-3G	AV-749993	RUBBER BUTTON SHEET CONTACT-GERMAN (SILVER)
1-3GP	AV-712541	RUBBER BUTTON SHEET CONTACT-GERMAN (PEARL SHADOW)
1-3F	AV-749996	RUBBER BUTTON SHEET CONTACT (FRENCH)
1-4	AV-749979	TERMINAL BATTERY A(+)
1-5	AV-749980	TERMINAL BATTERY B(–)
1-6	AV-749981	TERMINAL BATTERY C(+–)
1-7	AV-749982	PC SWITCH (CONTACT)
1-IC1	EI-749983	IC UPD1943G
1-X1	EI-749984	OSC CE KRB455BAT
1-TR1	ET-318604	TR 2SD545NP E, F
1-D1, 2	ED-557447	D SILICON H 1S1588
1-D3, 4	ED-710035	D LED TLN105
1-D5	ED-790019	D LED SEL1123W

2. RECEIVER RC-V404

REF. NO.	PARTS NO.	DESCRIPTION
2-1E	AV-749986	RECEIVER RC-R4-E (ENGLISH)
2-1G	AV-749994	RECEIVER RC-R4-G (GERMAN)
2-1F	AV-749997	RECEIVER RC-R4-F (FRENCH)
2-IC1	EI-348897	IC M51014L
2-TR1	ET-348898	TR FET 2SJ40 C, D, E
2-D1	ET-330238	PHOTO SENSOR PH302

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1. VS-1EG/EG-G/EO/EK

PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.
AV-V1017A330A	13-7x	EC-749826	10-C45	ED-624903	8-D2	EI-344921	1-IC
BA-M3201A020A	1-21	EC-749827	10-C51	ED-624903	8-D10	EI-345133	8-IC5
BA-V1017A050A	8-1EG	ED-200468	5-D15	ED-624903	8-D12	EI-345279	8-X1
BA-V1017A050B	8-1EO	ED-200468	5-D5	ED-624903	8-D19	EI-347434	8-X2
BA-V1017A200B	9-1	ED-249377	7-D20	ED-624903	8-D11	EI-347733	2-50
BA-V1017A260A	10-1EG	ED-249377	7-D16	ED-624903	9-D1	EI-347757	8-IC1
BA-V1017A260B	10-1EK	ED-249377	7-D13	ED-624903	9-D15	EI-347758	8-IC2
BA-V1017A260D	10-1EO	ED-283138	7-D19	ED-624903	9-D2	EI-347760	8-IC8
BA-V1022A060A	7-1EG	ED-316143	7-D8	ED-624903	9-D6	EI-347763	5-IC301
BA-V1022A060B	7-1EK	ED-316143	7-D7	ED-705479	10-D4	EI-347764	5-IC302
BA-V1022A060D	7-1EO	ED-321115	8-D1B	EE-345115	10-2EG	EI-347766	9-IC1
BA-V1022A180A	5-1EG	ED-322238	8-D5	EE-345116	10-2EK	EI-347769	9-IC2
BA-V1022A180B	5-1EK	ED-331667	6-D201	EE-345118	10-2EO	EI-347773	7-IC2
BA-V1022A180D	5-1EG-G	ED-337260	9-D16	EF-346880	8-SF5	EI-347778	6-IC7
BA-V1022A190A	6-1	ED-337575	5-D19	EF-346880	8-SF6	EI-347779	6-IC11
BB-V1017A070B	2-x	ED-337575	5-D1	EF-347968	8-SF8	EI-347779	6-IC10
BD-B348310E	13-1A	ED-337575	5-D9	EF-601301	8-F2	EI-347779	8-IC9
BD-B348310F	13-1D	ED-337575	5-D8	EF-601942	8-F3	EI-347780	6-IC201
BD-B348310G	13-1B	ED-337575	5-D12	EF-623103	11-F901	EI-347781	5-IC10
BD-B348310M	13-1C	ED-337575	5-D13	EF-668474	8-F4	EI-349121	7-IC3
BD-B348310N	13-1E	ED-337575	5-D18	EF-691007	8-F1	EI-705494	10-IC1
BD-B348310S	13-1F	ED-337575	5-D11	EH-322365	5-DL301	EI-749828	10-IC2
BD-B348310T	13-1G	ED-337575	5-D17	EH-324305	5-FL1	EI-749829	10-IC3
BD-B348310U	13-1H	ED-337575	5-D14	EH-324339	5-FL3	EJ-301513	12-4
BL-B322027	2-27	ED-337575	6-D7	EH-324375	5-FL6	EJ-348218	12-7
BL-B322090	2-25	ED-337575	6-D6	EH-324398	5-FL8	EJ-347787	5-JA
BL-B326220	2-46	ED-337575	6-D11	EH-324469	5-FL5	EJ-347788	5-JV
BL-B326296	2-3	ED-337575	6-D10	EH-325807	5-FL9	EL-332451	2-20
BL-B326453	3-5	ED-337575	6-D8	EH-330465	6-FL2	EO-243977	5-L301
BL-B326455	3-3	ED-337575	6-D12	EH-330465	6-FL1	EO-243977	6-L202
BL-B326464	3-8	ED-337575	6-D9	EH-337468	5-DL1	EO-318383	5-L16
BL-B326468	2-14	ED-337617	8-D4	EH-345113	5-FL2	EO-321254	6-L204
BL-B327729	1-9	ED-337618	8-D6	EH-345114	5-FL7	EO-330240	5-L19
BL-B348098	2-12	ED-337618	8-D1	EH-347735	9-IB1	EO-330241	5-L12
BL-B348989	2-7	ED-344280	9-D14	EH-347736	7-IB1	EO-330241	5-L21
BL-B604437	3-14	ED-344280	9-D9	EH-347737	7-IB2	EO-330241	5-L24
BL-V1004A090A	2-30	ED-344280	9-D18	EH-347743	8-IB1	EO-330241	5-L23
BL-V1004A100A	2-31	ED-344280	9-D17	EH-347744	8-IB2	EO-330241	5-L315
BL-V1004A170B	2-43	ED-344280	9-D3	EH-348142	5-FL4	EO-330241	5-L314
BL-780030	3-27	ED-344280	9-D4	EH-705499	10-CF3EG	EO-330241	5-L11
BL-780031	3-28	ED-346468	8-D7	EH-705500	10-CF3EK	EO-330241	5-L2
BL-780033	3-30	ED-346637	9-D10	EH-742662	10-CF1EG	EO-330241	5-L7
BL-780034	3-31	ED-347767	6-D4	EH-742663	10-CF1EK	EO-330241	5-L15
BM-B344824	1-19	ED-347767	9-D7	EH-749839	10-CF2EG	EO-330241	5-L6
BM-345265	3-2	ED-347768	5-WD1	EH-749840	10-CF2EK	EO-330241	5-L17
BM-348088	4-2	ED-347768	5-WD3	EH-749841	10-CF4EG	EO-330245	5-L303
BM-349150	2-42	ED-347768	5-WD2	EH-749842	10-CF4EK	EO-330245	5-L310
BM-749896	3-21	ED-347768	5-WD4	EI-257602	6-IC4	EO-330245	5-L9
BR-347731	2-38	ED-347768	6-D3	EI-257602	6-IC5	EO-330245	5-L1
BR-347732	2-39	ED-347768	9-D8	EI-257602	8-IC6	EO-330246	5-L14
BT-345135	12-1EG	ED-347768	9-D11	EI-300834	6-IC9	EO-330246	5-L20
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BV-V1017A160A	1-2	ED-347776	7-D12	EI-309878	5-X1	EO-330248	5-L4
BV-V1017A250A	3-20	ED-347777	7-D18	EI-310038	5-IC9	EO-330249	5-L306
BV-V1022A170A	1-1	ED-347777	7-D17	EI-310183	5-IC8	EO-330249	5-L307
BV-327815	3-9	ED-347777	7-D15	EI-310183	6-IC6	EO-330249	5-L3
BV-345124	12-6EG	ED-347899	9-D5	EI-315243	8-IC4	EO-330251	5-L13
BV-345125	12-6EK	ED-348205	6-D1	EI-321604	6-IC8	EO-330252	5-L18
BV-345126	12-6EO	ED-523427	5-D4	EI-322309	5-IC2	EO-330255	5-L311
BV-347813	4-1	ED-523427	5-D3	EI-324151	5-IC3	EO-345861	5-L318
EC-200949	5-C87	ED-523427	5-D22	EI-324160	5-IC4	EO-345866	5-L302
EC-325054	6-C209	ED-523427	5-D23	EI-324182	5-IC5	EO-345866	5-L309
EC-332052	5-C96	ED-523427	7-D9	EI-324203	5-IC6	EO-345867	5-L22
EC-337793	5-C94	ED-604541	10-D2	EI-324204	5-IC1	EO-345870	5-L8
EC-338411	11-C901	ED-604541	10-D3	EI-326044	6-IC1	EO-345872	5-L308
EC-345111	8-C38	ED-604541	10-D1	EI-327364	5-X2	EO-345872	5-L312
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ES-349641	5-SW1EG	ET-306719	8-TR9	MB-326474	3-11	ZG-780035	3-32
ET-200401	6-TR203	ET-306719	8-TR2	MB-780029	3-26	ZG-780039	3-33
ET-200402	6-TR202	ET-307997	10-Q6	MH-321688	2-18	ZG-780040	3-34
ET-200402	6-TR201	ET-307997	10-Q12	MI-B328611	3-10	ZS-321783	13-4
ET-200479	5-TR8	ET-307997	10-Q8	MI-327773	2-24	ZS-326246	2-44
ET-200479	5-TR9	ET-318308	4-5	MI-347812	1-8	ZS-328608	2-45
ET-200479	5-TR11	ET-321644	5-TR14	ML-330640	2-29	ZS-332978	1-6
ET-200479	5-TR31	ET-328578	8-TR1B	ML-749691	4-22	ZS-380046	1-16
ET-200479	5-TR19	ET-330464	10-Q13	ML-749693	4-23	ZS-477876	2-6
ET-200479	5-TR33	ET-330464	10-Q4	MP-604531	2-5	ZS-609434	2-19
ET-200479	5-TR28	ET-330464	10-Q3	MR-749685	4-20	ZW-259334	1-11
ET-200479	5-TR6	ET-330464	10-Q7	MR-749686	4-21	ZW-324417	2-40
ET-200479	6-TR3	ET-330464	10-Q2	MV-322302	3-12	ZW-343120	1-10
ET-200479	6-TR11	ET-330464	10-Q9	MZ-B321701	3-1	ZW-344643	2-11
ET-200479	6-TR7	ET-330464	10-Q11	MZ-749640	4-27	ZW-344643	2-41
ET-200479	7-TR1	ET-330464	10-Q10	MZ-749692	4-13		
ET-200479	7-TR2	ET-332421	5-TR30	MZ-749694	4-14		
ET-200479	7-TR4	ET-337569	8-TR1	MZ-749697	4-16		
ET-200479	7-TR3	ET-344999	6-TR210	MZ-749698	4-17		
ET-200479	8-TR12	ET-344999	8-TR7	MZ-749699	4-25		
ET-200479	8-TR6	ET-346806	9-TR2	MZ-749715	4-15		
ET-200480	5-TR40	ET-346806	9-TR3	MZ-749853	4-26		
ET-200480	5-TR16	ET-346806	9-TR1	MZ-749855	4-24		
ET-200985	5-TR35	ET-346806	9-TR9	MZ-749894	4-18		

2. REMOTE CONTROL UNIT RC-V404

PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.
AV-712539	1-1GP	AV-749980	1-5	AV-749993	1-3G	ED-710035	1-D4
AV-712540	1-2P	AV-749981	1-6	AV-749994	2-1G	ED-780019	1-D5
AV-712541	1-3GP	AV-749982	1-7	AV-749995	1-1F	EI-348897	2-IC1
AV-712542	1-2G	AV-749986	2-1E	AV-749996	1-3F	EI-749983	1-IC1
AV-749976	1-1E	AV-749987	1-1EM	AV-749997	2-1F	EI-749984	1-X1
AV-749977	1-2S	AV-749988	1-3P	ED-557447	1-D2	ET-318604	1-TR1
AV-749978	1-3S	AV-749989	1-1EP	ED-557447	1-D1	ET-330238	2-D1
AV-749979	1-4	AV-749992	1-1G	ED-710035	1-D3	ET-348898	2-TR1

AKAI VS-1

SECTION 4

SCHEMATIC DIAGRAM

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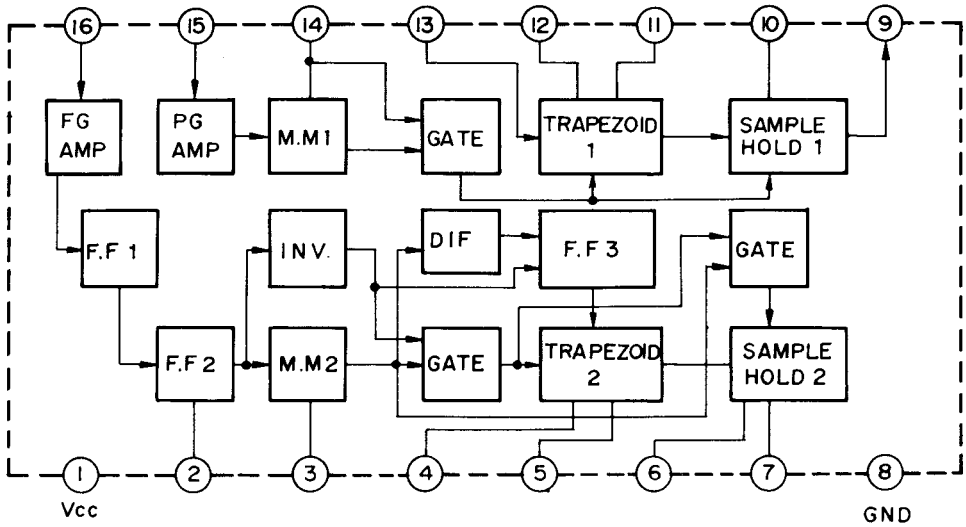
AN6341



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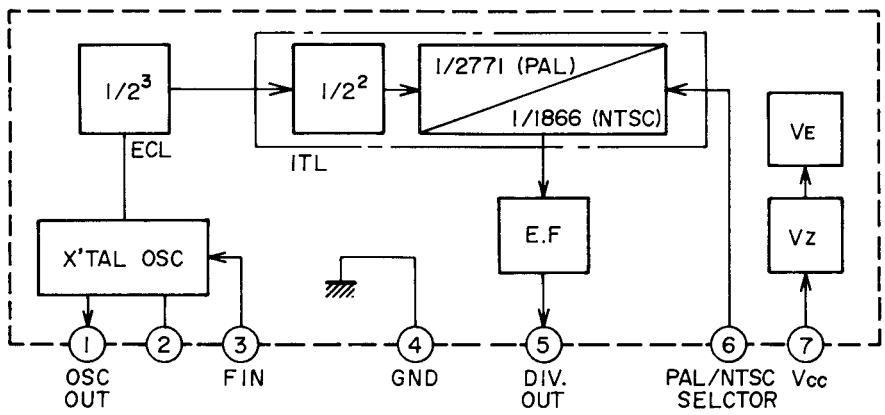

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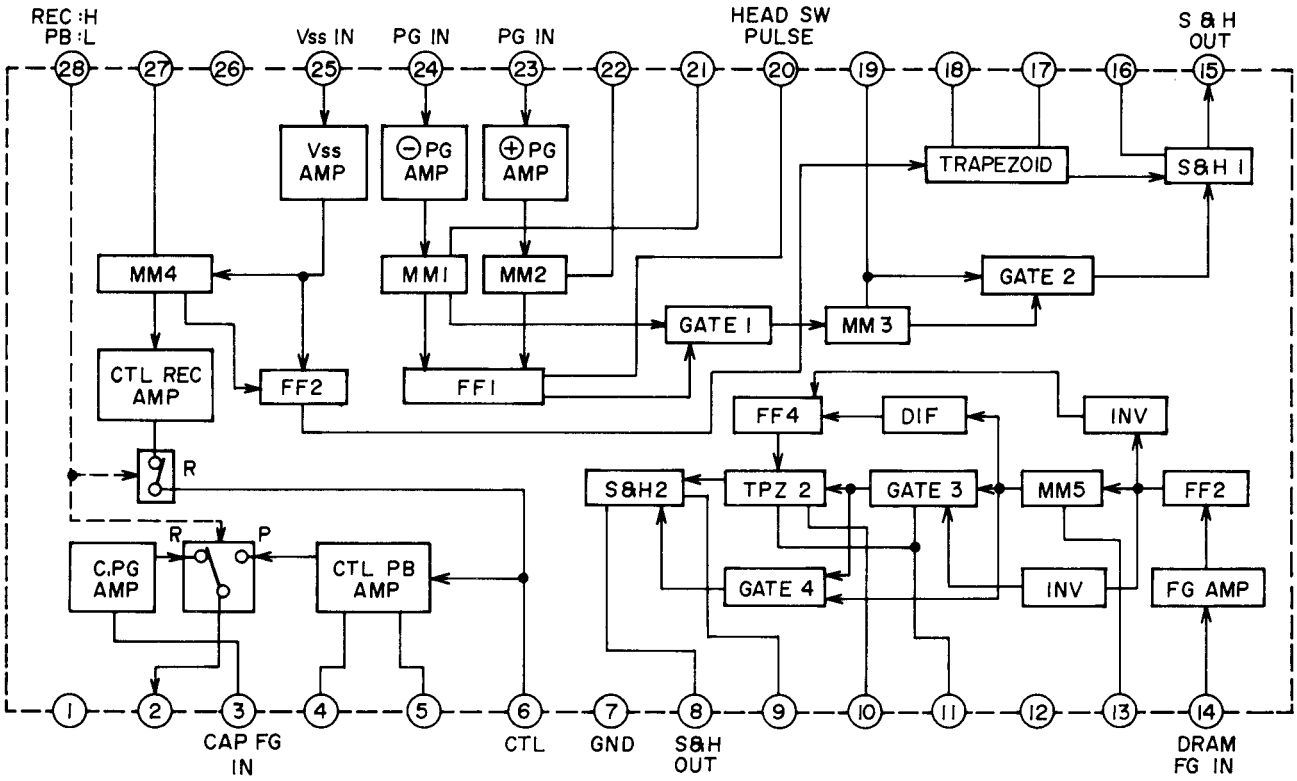

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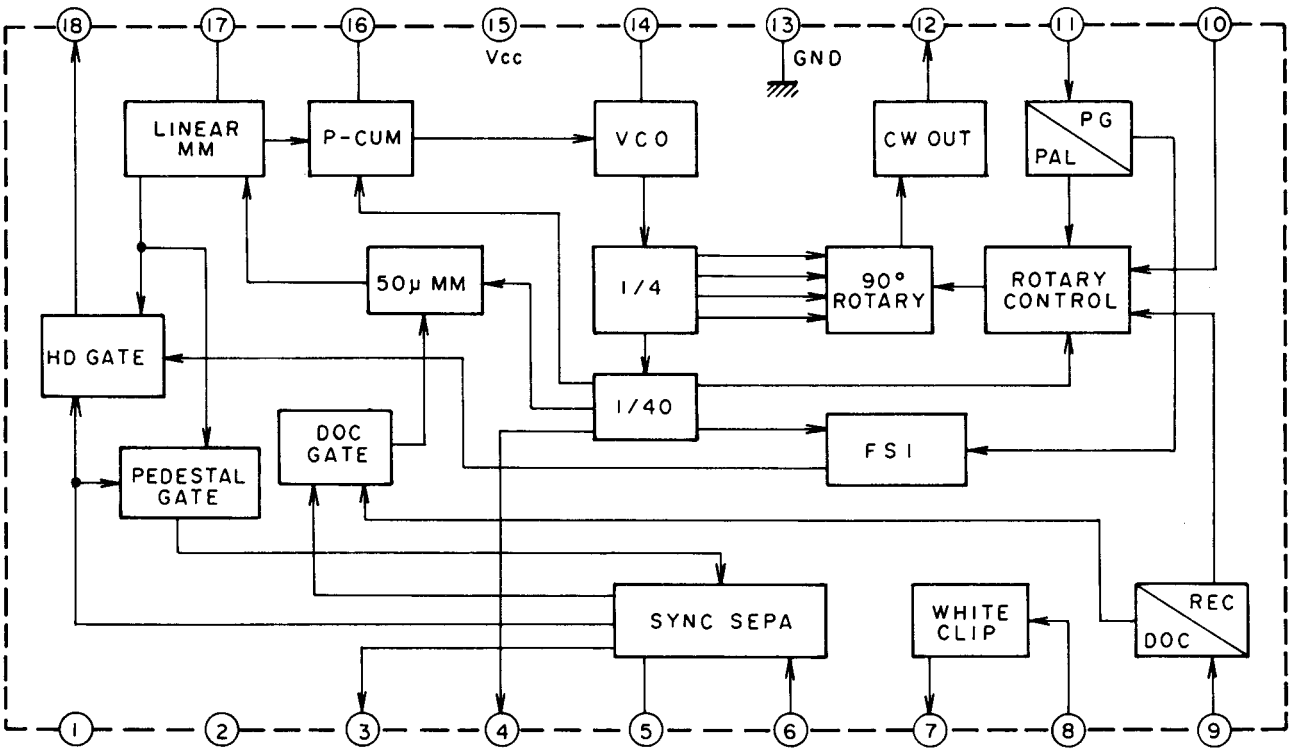

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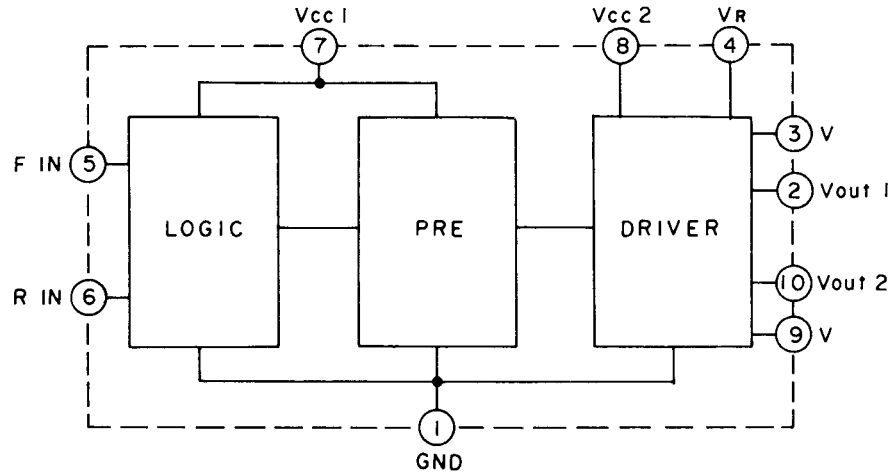
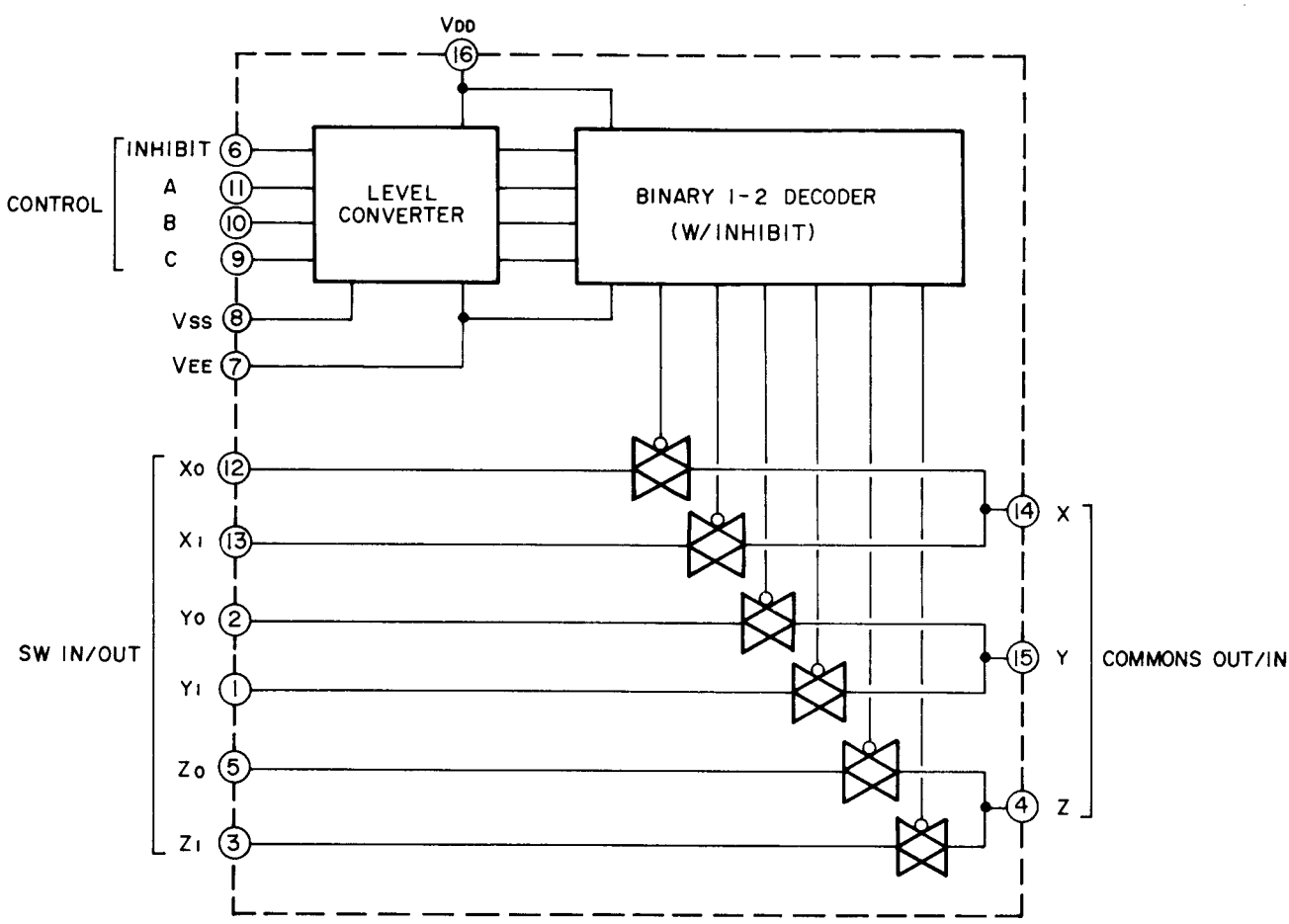
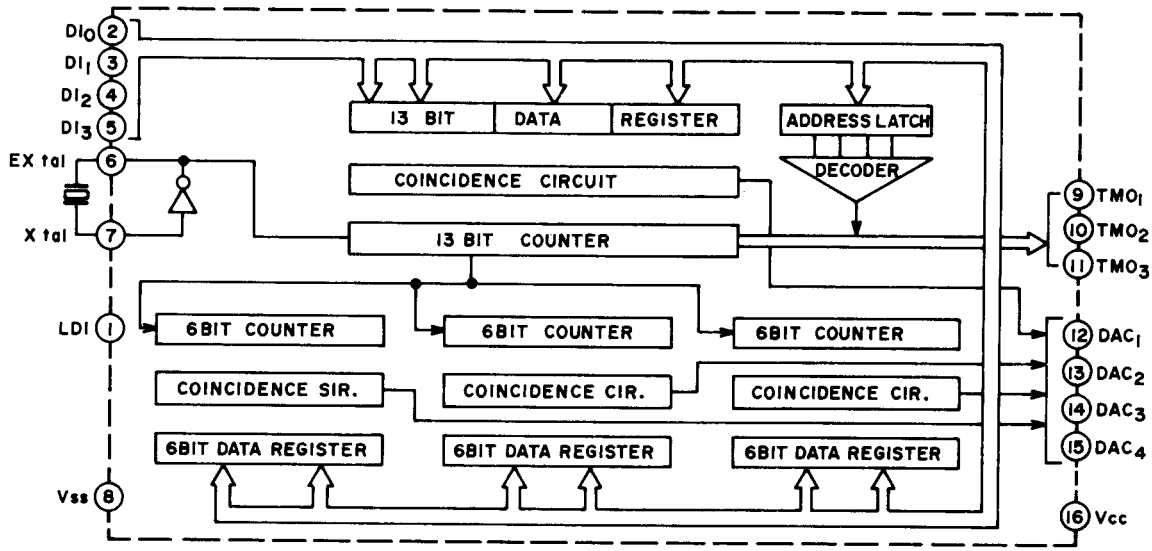


HD14053BP

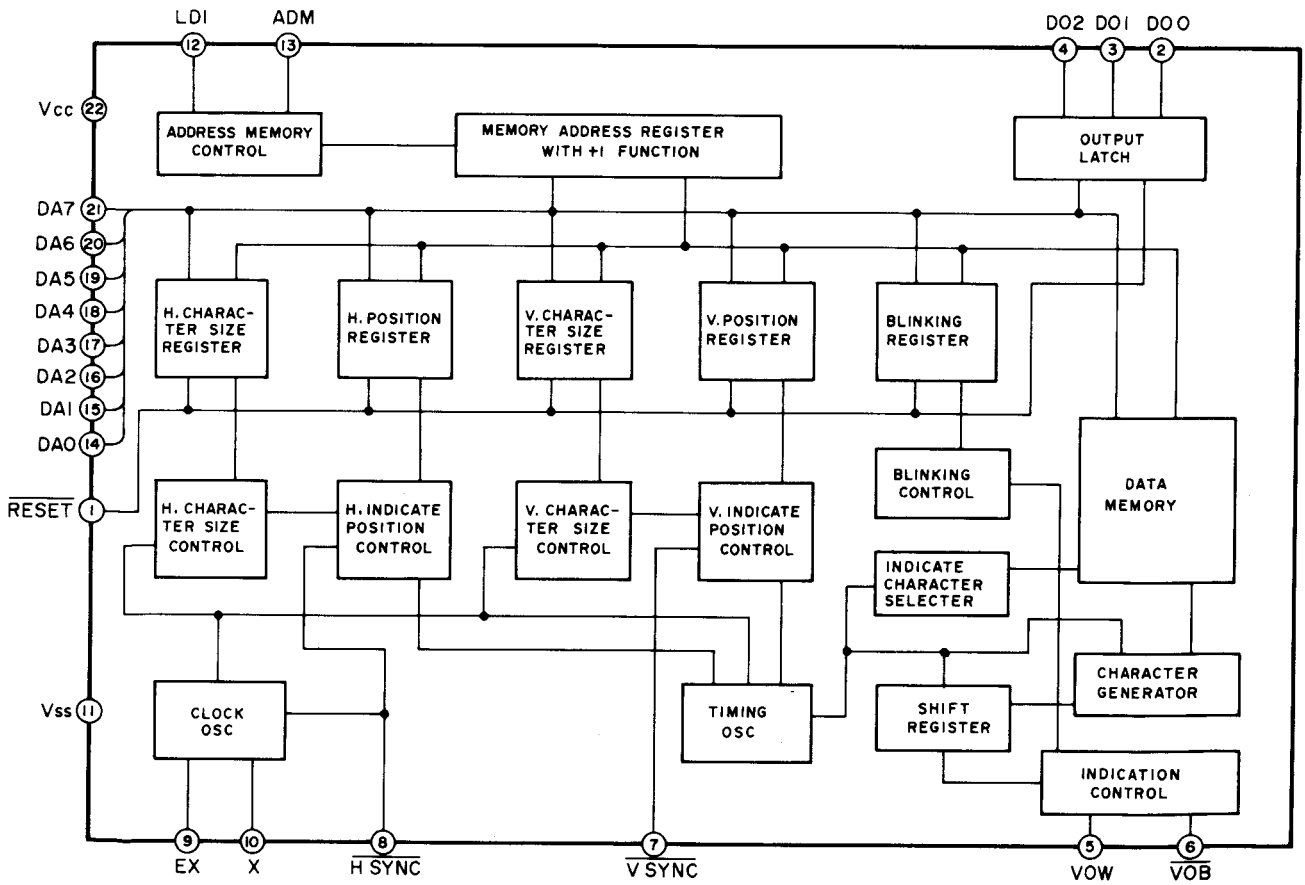


SCHEMATIC DIAGRAM VS-1

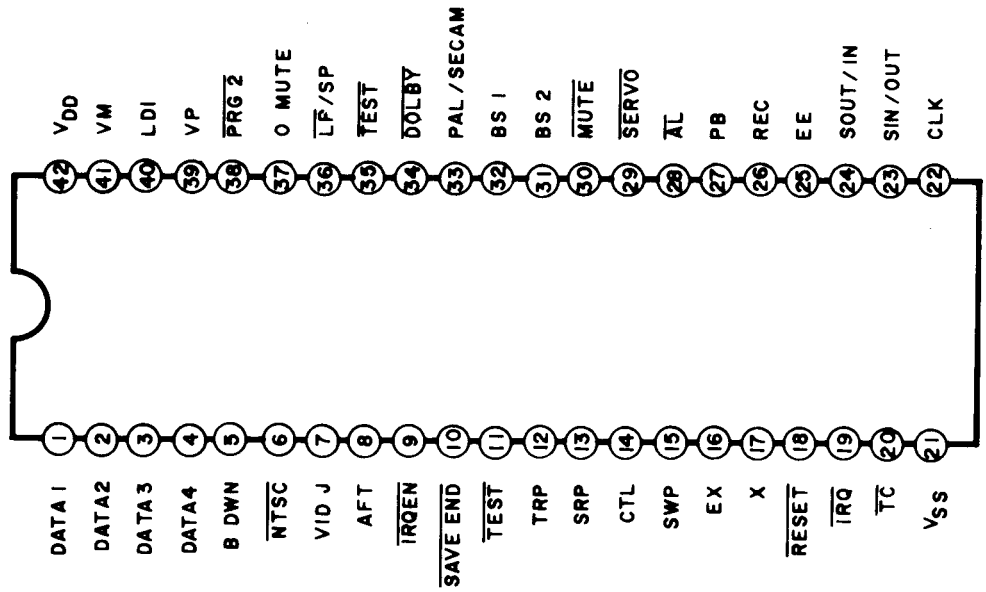
MB88301P



MB88303M



MB88401/206M



Description of IC(MB88401-206M) Terminals

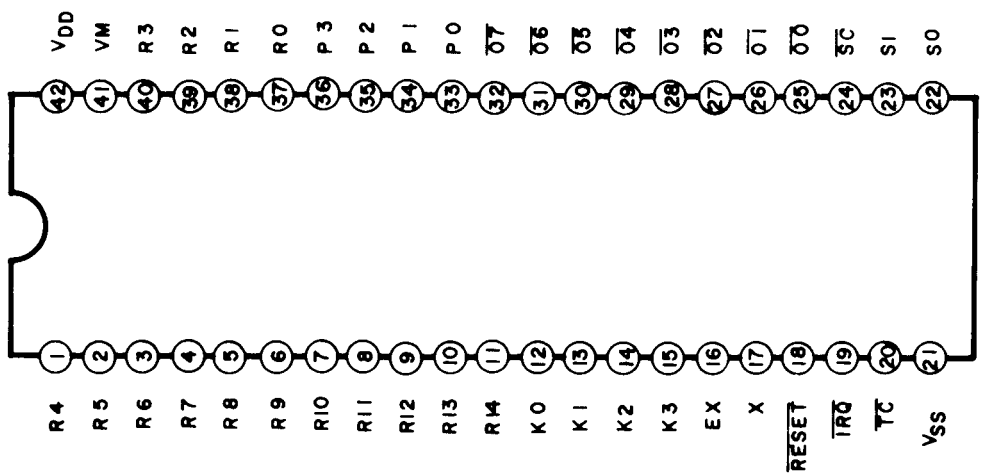
Pin No.	Symbol	Description
1 2 3 4	DATA I/0	○ DATA output to DAC IC7 (MB88301A) and input/output between EXPANDER IC1 (MBL8243) of MECHA DRIVE PCB.
5	B DOWN	○ At "L" level all the motors and plungers are turned off, and turn in the state of Function –OFF.
6	$\overline{\text{NTSC}}$	○ At "L" level, DATA display of the tape remainings is switched into DATA for NTSC. (not used)
7 8	VIDEO J AFT	○ These are terminals for TV search to which "H" is input when VIDEO signal is in normal, "L" in abnormal.
9	$\overline{\text{IRQEN}}$	○ Interrupt Request Enable Terminal, controls whether both differential inputs of switching pulse are input to pin 19 (IRQ) or not.
10	$\overline{\text{SAVE END}}$	○ At Power down, "L" level is output, and a RESET functions.
11	$\overline{\text{TEST}}$	Not used
12 13 14 15	TRP SRP CTL SWP	These terminals are used for controlling Reel STOP and the judgements of Drum MOTOR STOP by means of inputting TAKE-UP Reel Pulse, Supply Reel Pulse, CTL Pulse and Switching Pulse.
16 17	EX X	Clock oscillator terminal Clock oscillator terminal
18	$\overline{\text{RESET}}$	At "H" level, RESET is removed.
19	$\overline{\text{IRQ}}$	For trigger input to make a dummy V-Sync at TRICK Mode.
20	$\overline{\text{TC}}$ ($\overline{\text{POWER DOWN}}$)	When the power down detector detects a power down, it turns to "L" level and saves the data in the RAM. After that, "L" level outputs at pin 10 save end and a Reset functions.
21	VSS	GND
22 23 24	S CLK S IN/OUT S OUT/IN	These terminals are used for data transfer between the terminals of IC2 MB88401 of operation PCB.

Pin No.	Symbol	Description
25 26 27 28	EE REC PB12 $\overline{AL}$	○ EE12 ○ REC12 ○ PB12 ○ AL12 These are control signal output terminals which control EE12V, REC12V, PB12V and AL12V.
29	$\overline{SERVO}$	Only when DRUM MOTOR stops, it turns "H" level and Drum Heater turns on.
30	$\overline{MUTE}$	Tuner Audio Out mute at "L"
31 32	BS 2 BS 1	These are the terminals for signal outputs of band selector control which select VHF-High, VHF-Low and UHF, according to the combination of "H" output and "L" at BS1 and BS2.
33 34 35 36	PAL/SECAM $\overline{DOLBY}$ $\overline{TEST}$ $\overline{LP}$/SP	Not used.
37	O MUTE	For control signal output which controls the Mute circuit of Audio signal ("H" = MUTE)
38	$\overline{PRG2}$	This is the control signal output which controls 8 input terminals and 8 output terminals of expander IC_1 (MBL8243) at MECH DRIVE PCB.
39	VP	This terminal outputs a dummy V-Sync at Tric Mode.
40	LDI	This terminal outputs the address of $DACIC_7$ (MB88301) and the data of out-read/out-control signals.
41	VM	When RESET input is at "L" level, the content of RAM is maintained if more than 3V of power is supplied.
42	VDD	Power input (+5V)

BAND SELECTION

BS1	BS2	BAND
0	0	VHF-H
0	1	VHF-L
1	0	UHF

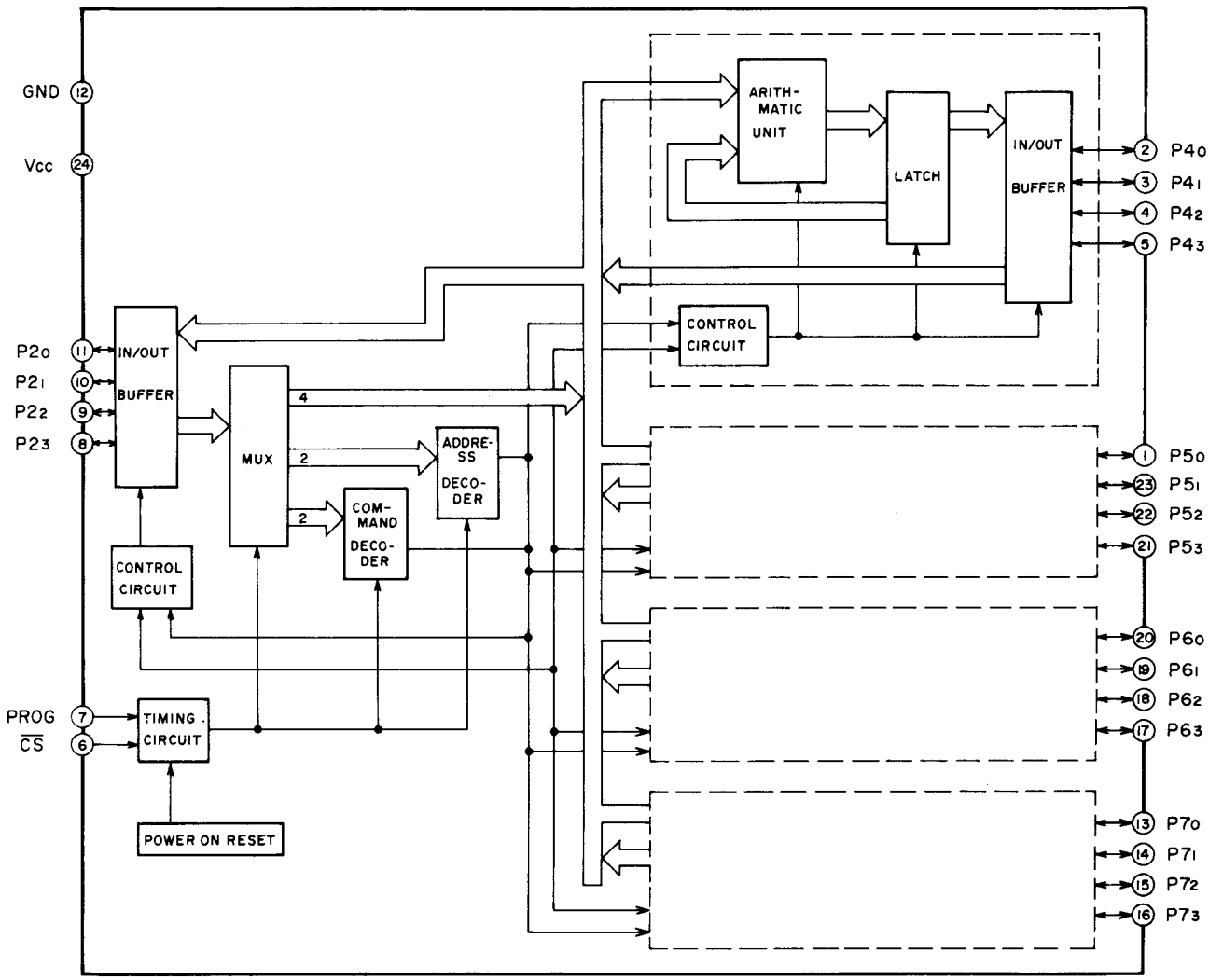
MB88401/233K



BAND SELECTION

PIN NO.	SYMBOL	DESCRIPTION
1 to 8	R4 to R11	Output terminals for both Key Matrix scan and Address & Charactor Data
9	R12	E0 input (not used)
10	R13	EK input (not used)
11	R14	Connected to ground for VS-1 models.
12 to 15	K0 to K3	Key Matrix Data input
16 17	EX X	} Clock Oscillator terminals
18	$\overline{\text{RESET}}$	RESET signal input from SYSCON MI-COM IC5 (MB88401/206M)
19	$\overline{\text{IRQ}}$	REMOCON signal data input
20	$\overline{\text{TC}}$	Not used
21	Vss	Cannect to ground
22 23 24	SO SI $\overline{\text{SC}}$	Serial Data output Serial Data input Serial Clock input } Data exchange between SYSCON MI-COM IC5 (MB88401/206M)
25 to 32	$\overline{\text{O0}}$ to $\overline{\text{O7}}$	Mode Indicator LEDs (D12 to D19) drive output, lit at "L"
33 to 36	P0 to P3	LED drive voltage output, drive 3 systems of LEDs by 2 msec interval.
37	R0	Not used.
38	R1	$\overline{\text{VIDEO}}$/TV selection output
39 40	R2 R3	} CRT Controller IC (IC2 MB88303M) Control signal output
41	V_M	Voltage for memory, connected to +5V
42	V_{DD}	Power supply terminal (+5V)

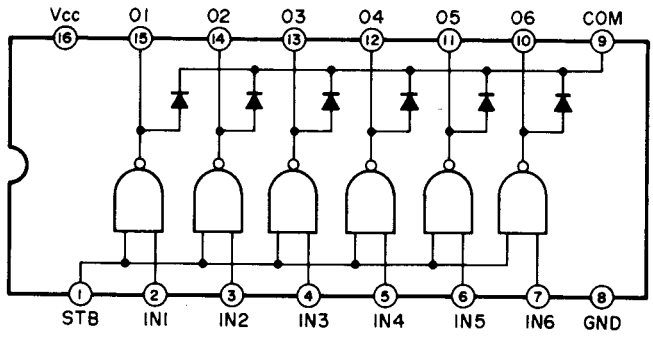
MBL8243M



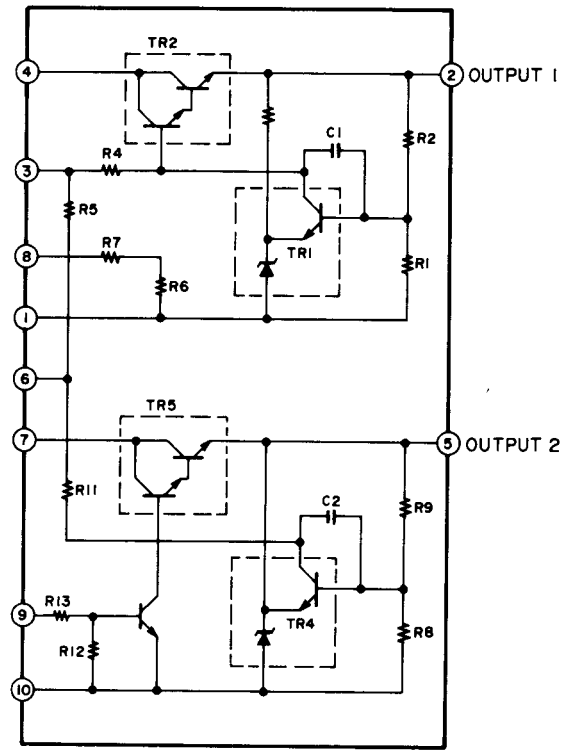
INPUT EXPANDER IC1 MBL 8243M IN/OUT

INPUT			OUTPUT		
PIN	SYMBOL	INPUT ITEM	PIN	SYMBOL	OUTPUT FOR
1	RS SW	REC Safety SW H: REC L: not REC	13	$\overline{CUE}$	CUE $\overline{ON}$/OFF
			14	$\overline{REVW}$	REVIEW $\overline{ON}$/OFF
2	LSW-A2	Loading Position Detection SW	15	SP/$\overline{LP}$	Not used
3	LSW-B1		16	CM STP	Capstan Motor STOP
4	$\overline{SS}$	Tape Start Sensor	17	$\overline{PL\text{-}ON}$	Plunger $\overline{ON}$/OFF
5	$\overline{ES}$	Tape End Sendor	18	LM STP	Loading Motor OFF
7	PRG2	8 IN/OUT Control Signal	19	EM STP	Eject Motor STOP
21	C SW3	Ejector Set SW	20	M. $\overline{RVS}$	All Motor Reverse
22	C SW2	Ejector SW			
23	C SW1	Cassette SW			
8	DATA 1	DATA IN/OUT			
9	DATA 2				
10	DATA 3				
11	DATA 4				

M54534P



STK5325



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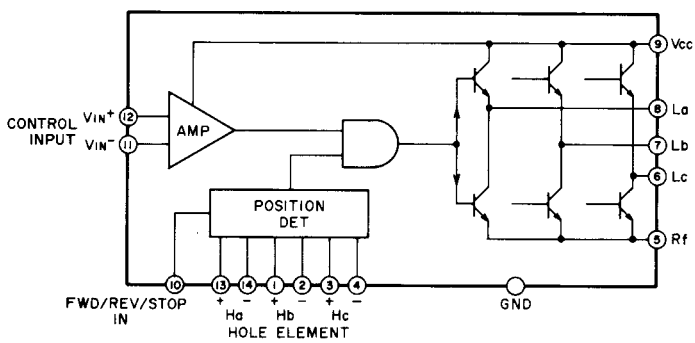

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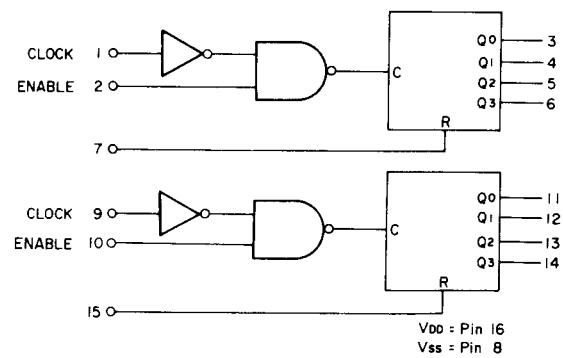
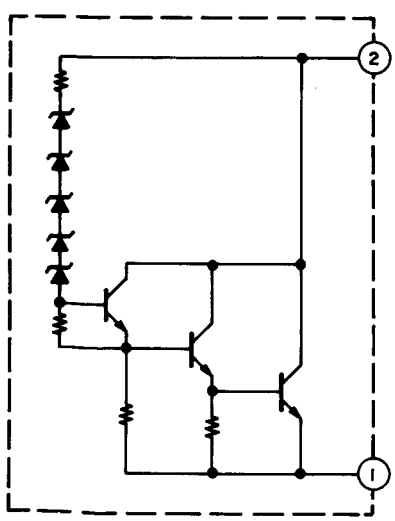
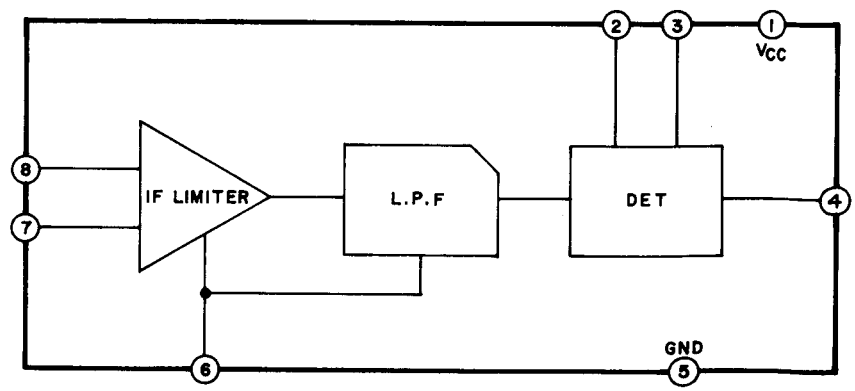


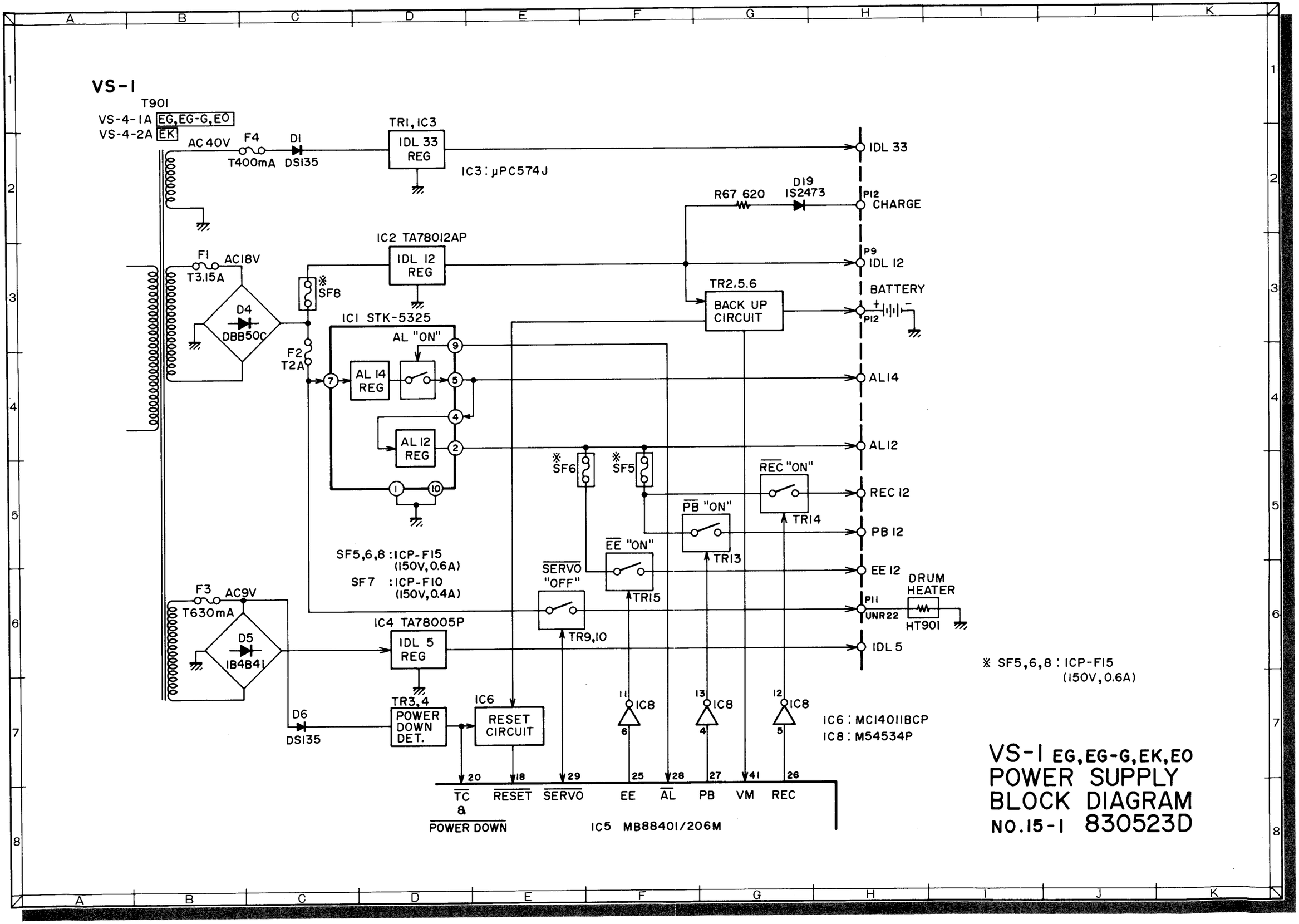
μPC574J



μPC1391H

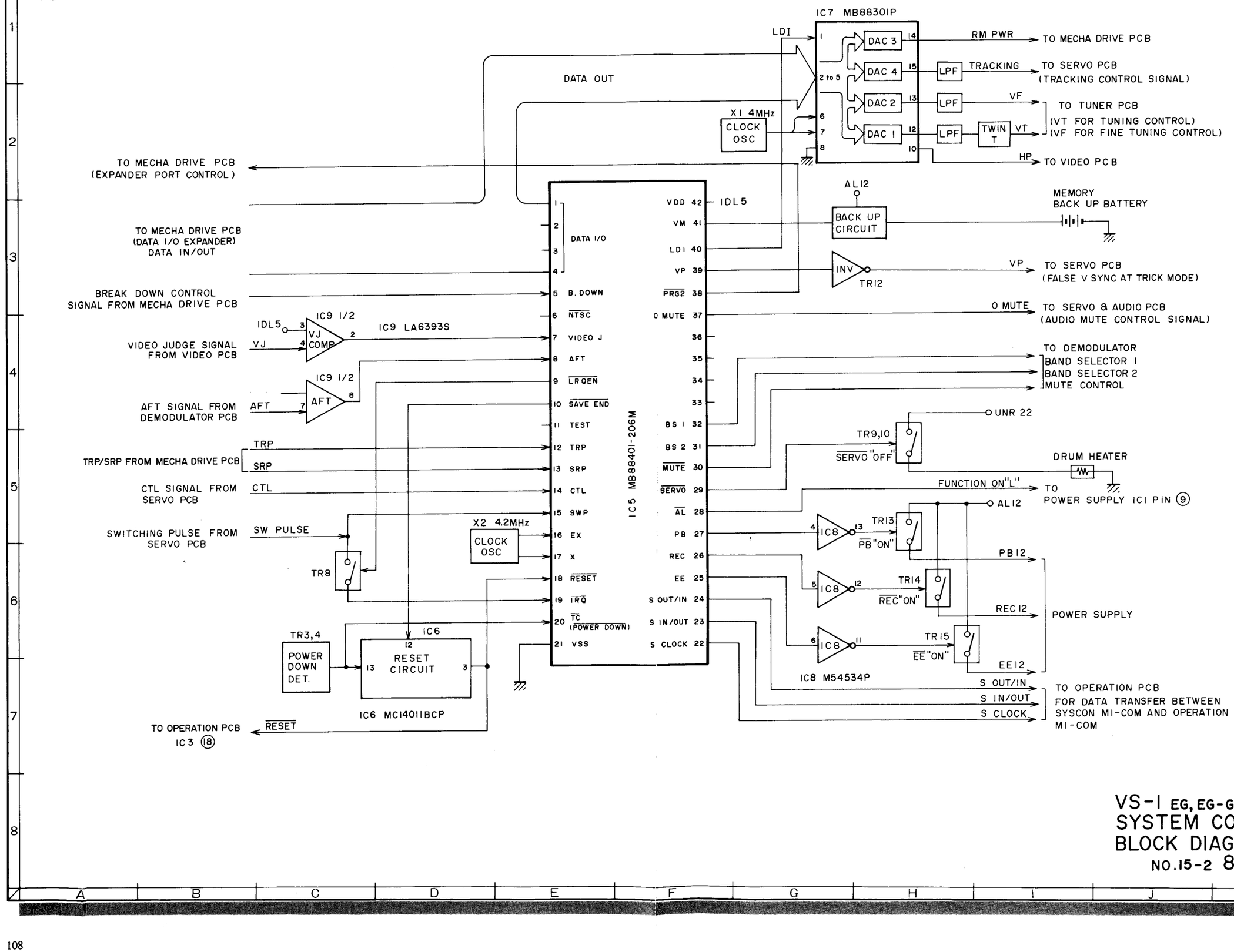


SCHEMATIC DIAGRAM VS-1



VS-1 EG, EG-G, EK, EO POWER SUPPLY BLOCK DIAGRAM NO.15-1 830523D

VS-1



VS-1 EG, EG-G, EK, EO
SYSTEM CONTROL
BLOCK DIAGRAM
NO.15-2 830521C

VS-I

= B (POWER SUPPLY) LINE

EG, EG-G, EO

EK

POWER FILTER PCB V1017D5060

POWER SUPPLY & SYSTEM CONTROL PCB V1017A5030 (3ED)

LED PCB V1015A505B

V1015A505C (EO MODEL ONLY)

OPERATION PCB V1015A505A

IC1 STK5325

IC2 TA78012AP

IC4 TA78005P

IC5 MB88401/206M

IC6 MC14011BCP

IC7 MB88301P

IC8 M54534P

IC9 LA6393S

TR1 2SA675(A)(E,F,H)

TR2 2SC2236(O,Y)

TR3,4 2SC2603(D,E,F)

TR5 2SC2603(D,E,F)

TR7 2SD1010(R,S,T)

TR8 2SC2603(D,E,F)

TR9 2SC2236(O,Y)

TR10 2SC2603(D,E,F)

TR11 2SC2603(D,E,F)

TR12 2SA1115(D,E,F)

TR13 2SA1282A(E,F,G)

TR14,15 2SA1282A(E,F,G)

TR16 2SC2603(D,E,F)

TRI 2SC2320(E,F)

X2 4.194304MHz

SF = SEMI CONDUCTOR FUSE
SF5,6,8 ICP-F15(150V, 0.6)
SF7 ICP-F10

TO REMOCON UNIT (RC-R4)

DC VOLTAGE ARE MEASURED AT STOP MODE

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: Δ INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT.

001370

VS-1 EG,EG-G,EK,EO CONNECTION SCHEMATIC DIAGRAM NO.15-3 830522D

BATTERY PCB V1017D5150

BATTERY PACK BLK VS-4EG(NICd)

DEMODULATOR(TV TUNER)
CDE1-A04(EG/EG-G)
CEE1-009(EO)
CBE1-013(EK)

RF BOOSTER
MDW3-253(EG/EG-G)
MIW3-253(EK)
MSW3-253(EO)

FULL ERASE HEAD PCB V1017D5130

AC HEAD PCB V1017A5140(2/2)

VIDEO PCB V1017A5040

SERVO & AUDIO PCB V1017A5010

DRIVE PCB M3201C5010

MECHA DRIVE PCB V1015A502A

SLEEP PCB V1017D5170

SENSOR PCB (L) V1015D2150

SENSOR PCB (R) V1015D2350

L SW B PCB V1015A502B

L SW A PCB V1015A502C

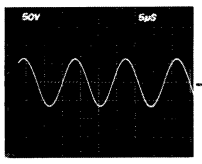
RS SW PCB V1015A502D

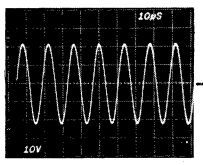
HALL IC (L) PCB V1017D5080

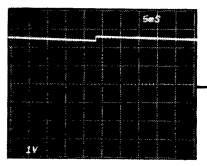
HALL IC(R)PCB V1017D5070

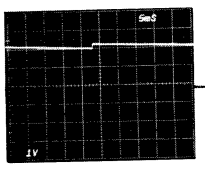
NOTES
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)

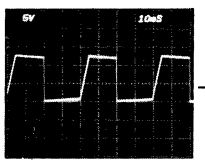
VS-1

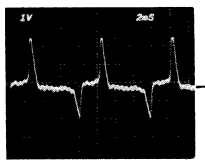


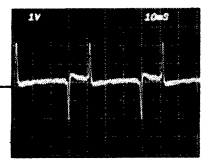


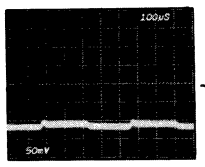


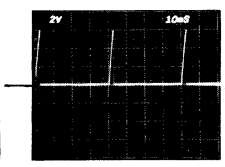


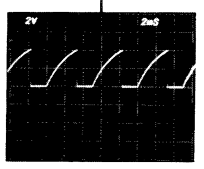


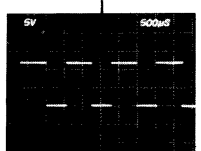


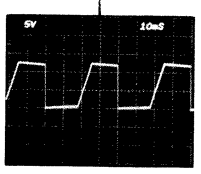


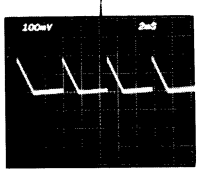


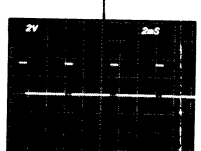


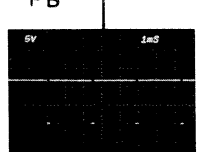


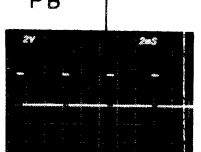


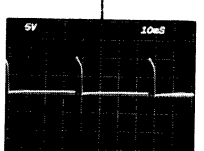


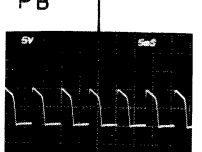


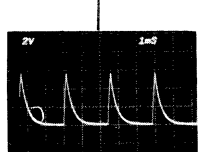


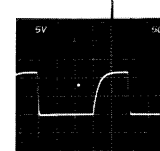


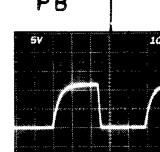












NOTE

1. (DC) INDICATES THE WAVEFORM OBSERVED AT DC RANGE
2. THE LINE ON THE PHOTOGRAPH SHOWN RIGHT SIDE INDICATES DC 0V LINE

P26 TO VIDEO

REF V

SW PULSE

P27 TO DRIVE

DM CTL

GND

PG

DM FG

DM FG

PB. CUE

REV

PB

CUE

REV

PB. CUE

REV

PB. CUE

REV

REC SW POINT VR2

CH-2 SW POINT VR4

CH-1 SW POINT VR3

Vss AMP

MM

FF

TRAPE

REC CTL AMP

REC SW PULSE AMP

GATE

SAMPLE HOLD

⊖ PG AMP

⊕ PG AMP

CH-2 SW PHASE MM

CH-1 SW PHASE MM

SW PULSE FF

DM FG AMP

TRAPE

FF

GATE

SPD CTL MM

SAMPE HOLD

CUE

CUE OR REV

IC2 MC14066

VR6 COLOR PHASE

R27

R28

DM SPEED VR5

REV

CUE OR REV AL12

REC "ON"

CTL PB AMP

PB

REC

CM PG AMP

IC1 AN6350

REC 12

EE12

O. MUTE

GND

TRACKING

REC (12V)

AL (12V)

SRV

SW PULSE

CTL

GND

AL (14V)

P29 TO POWER SUPPLY & SYSCON

D1 LIMITER

TR1 SRV "OFF"

R33

DM PRE AMP

DM FG AMP

IC3 M5218LO

1.8 KHz BPF

IC5 MC14011BCP

IC6 MC14001BCP

D3

IC6

IC7 BA6209

LOGIC

PRE

DRIVER

CAPSTAN MOTOR

CM

TR3,4

LOGIC

MRVS FROM MECHA DRIVE

CM STOP

CAPSTAN MOTOR FG

CTL AMP

CM PRE AMP

IC11 LA6393S

IC9 TC4520BP

Q0 R

Q2

Q1 C

1/1, 1/3 or 1/5 COUNT DOWN

CM FG AMP

TRK

IC10 LA6393S

TR13

SHAPER

TR10, 11

SAW TOOTH OSC

REC "ON"

REC12 "ON"

PB

CUE

REV.

PB (DC)

CUE. REV (DC)

PB

CUE

REV

PB

CUE. REV

PB

CUE. REV

PB

CUE. REV

PB

(TRIO ©)

PB

CUE. REV

CUE. REV

CUE. REV

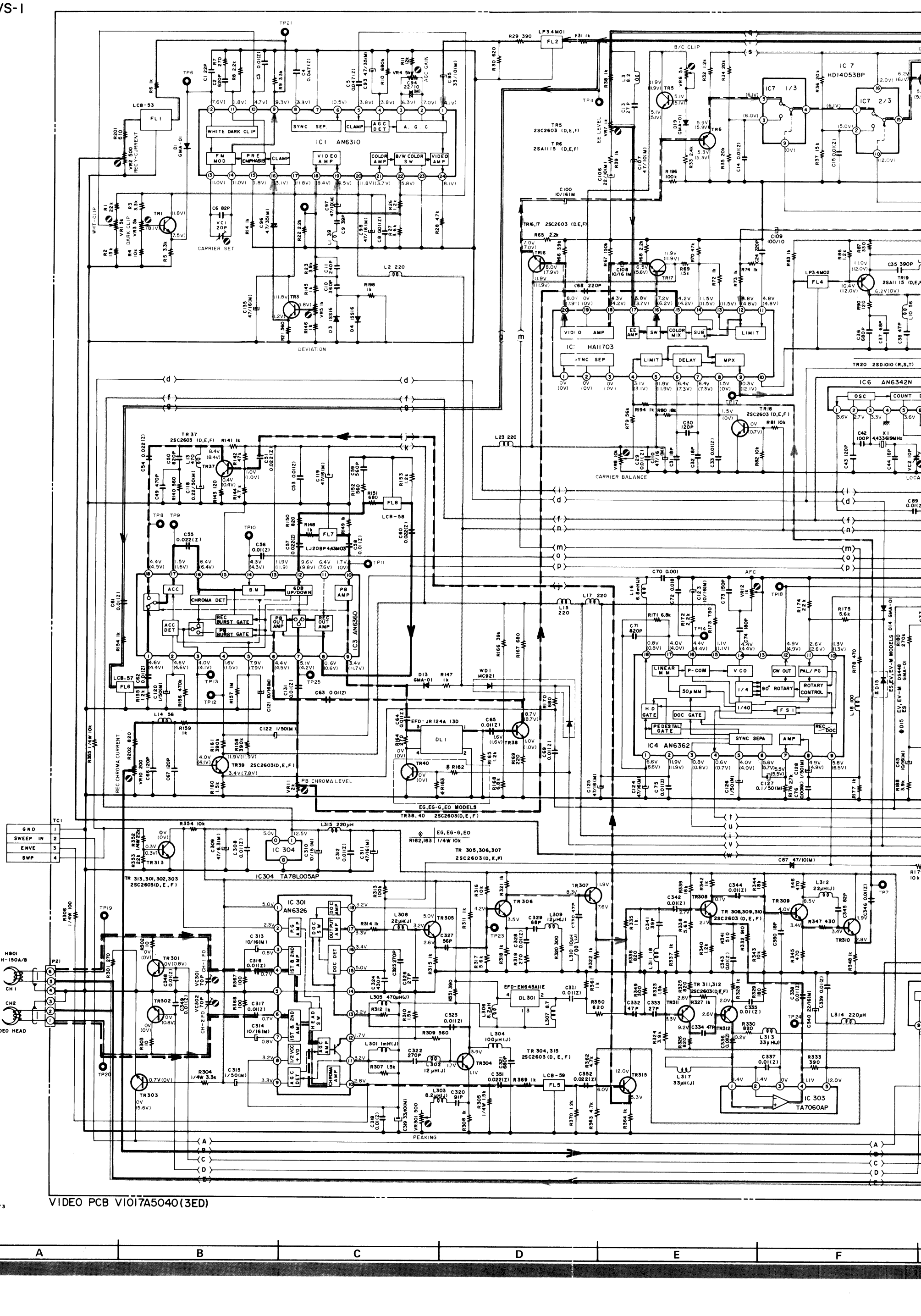
CUE. REV

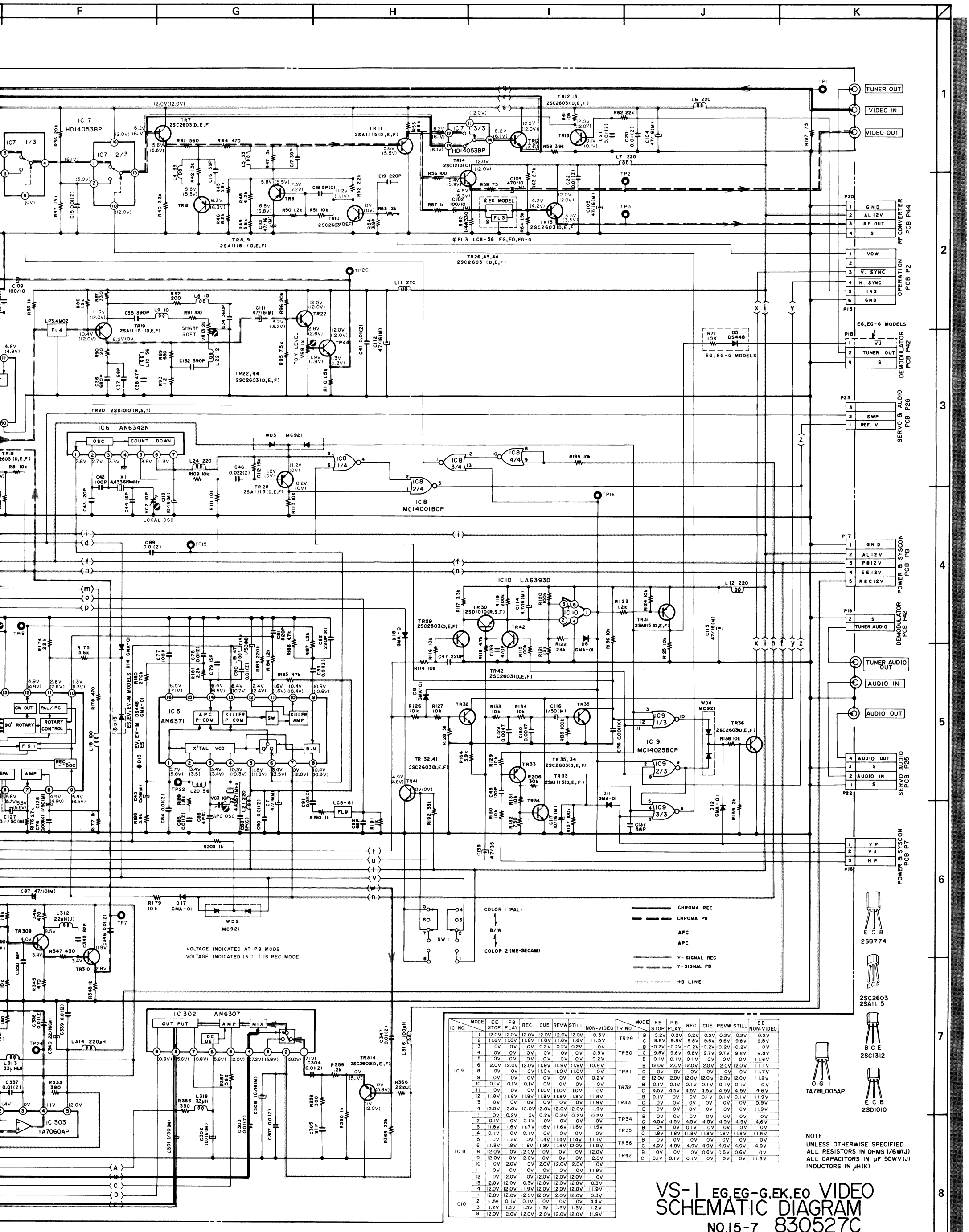
CUE. REV (TRIO ©)

VS-1 EG, EG-G, EK, EO
SERVO & AUDIO BLOCK DIAGRAM
NO.15-4 830524D

F G H I J K

VS-I


IC1 AN6310
WHITE DARK CLIP
SYNC SEP.
CLAMP
AGC DET
A. G. C
FM MOD
PRE EMPHASIS
CLAMP
VIDEO AMP
COLOR AMP
B/W COLOR SW
VIDEO AMP
CARRIER SET
DEVIATION
IC7 HD14053BP
IC7 1/3
IC7 2/3
IC HA11703
VIDEO AMP
SYNC SEP
EE AMP
SW
COLOR MIX
SUB
LIMIT
DELAY
MPX
IC6 AN6342N
OSC
COUNT
CARRIER BALANCE
IC3 AN6360
ACC
CHROMA DET
B.M
6DB UP/DOWN
PB AMP
REC BURST GATE
PB BURST GATE
PB OUT AMP
REC OUT AMP
ACC DET
PB CHROMA LEVEL
EG,EG-G,EO MODELS
TR38,40 2SC2603(D,E,F)
IC4 AN6362
LINEAR M M
P-COM
V CO
CW OUT
PAL/PG
50μ MM
1/4
90° ROTARY
ROTARY CONTROL
1/40
F S I
H D GATE
DOC GATE
PEDESTAL GATE
REC DOC
SYNC SEPA
AMP
IC304 TA78L005AP
IC 301 AN6326
P.G AMP
DOC SW
OUTPUT AMP
DOC AMP
DOC DET
1ST & 2ND AMP
1/2 VCC + VD
HEAD SW
AGC AMP
AGC DET
CHROMA AMP
IC 303 TA7060AP
EFD-EN645AIIE
DL 301
EFD-JR124A 130
DL1
WD1 MG921
LCB-53
LCB-57
LCB-58
LCB-59
FL1
FL2
FL4
FL5
FL6
FL7
FL8
LP3.4M01
LP3.4M02
LJ20BP443M03
TC1
GND 1
SWEEP IN 2
ENVE 3
SWP 4
H901 VH-150A/8
CH1
CH2
VIDEO HEAD
P21
TR1 TR2 TR3 TR5 TR6 TR16,17 2SC2603 (D,E,F)
TR37 2SC2603 (D,E,F)
TR39 2SC2603(D,E,F)
TR40
TR313
TR301
TR302
TR303
TR304,315 2SC2603(D,E,F)
TR305
TR306
TR307
TR308
TR309
TR310
TR311
TR312
TR315
TR 305,306,307 2SC2603(D,E,F)
TR 308,309,310 2SC2603(D,E,F)
TR 311,312 2SC2603(D,E,F)
TR 313,301,302,303 2SC2603(D,E,F)
TR18 2SC2603 (D,E,F)
TR19 2SA1115 (D,E,F)
TR20 2SD1010 (R,S,T)
TR6 2SA1115 (D,E,F)
EE LEVEL
AFC
WHT-CLIP
DARK CLIP
REC CHROMA CURRENT
PEAKING
R201 510
VR2 500 RECY CURRENT
VR1 5k
VR3 5k
VR4 5k AGC GAIN
VR5 1k
VR6 5k
VR7 1k
VR8 10k
VR9 10k
VR10 200
VR11 2k
VR12 1k
VR301 500
D1 GMA-01
D3 1SS16
D4 1SS16
D13 GMA-01
D14 GMA-01
D15
D19 GMA-01
L1 39
L2 220
L3 8.2
L4 56
L10 56
L13 470
L14 56
L15 220
L16 6.8mH(J)
L17 220
L18 100
L23 220
L301 1mH(J)
L302 12μH(J)
L303 8.2μH(J)
L304 100μH(J)
L305 470μH(J)
L308 22μH(J)
L309 12μH(J)
L310 100μH(J)
L312 22μH(J)
L313 33μH(J)
L314 220μH
L315 220μH
L317 33μH(J)
L321 1k
L322 1k
L323 1.5k
L324 3.9k
L325 820
L326 820
L327 1k
L328 1k
L329 100
L330 820
L331 1k
L332 910
L333 390
L334 47P
L335 1k
L336 820
L337 1k
L338 5.6k
L339 18k
L340 1.2k
L341 510
L342 1k
L343 100
L344 18k
L345 470
L346 470
L347 430
L348 1k
L349 300
L350 18P
L351 680P
L352 1k
L353 1k
L354 1k
L355 1k
L356 1k
L357 1k
L358 1k
L359 1k
L360 1k
L361 1k
L362 1k
L363 4.7k
L364 1k
L365 1k
L366 1k
L367 1k
L368 1k
L369 1k
L370 1.2k
L371 1k
L372 1k
L373 1k
L374 1k
L375 1k
L376 1k
L377 1k
L378 1k
L379 1k
L380 1k
L381 1k
L382 1k
L383 1k
L384 1k
L385 1k
L386 1k
L387 1k
L388 1k
L389 1k
L390 1k



IC NO.	MODE	EE STOP	PB PLAY	REC	CUE	REVW	STILL	NON-VIDEO
IC9	1	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	0.3V
	2	11.6V	11.6V	11.8V	11.6V	11.6V	11.6V	11.5V
	3	0V	0V	0V	0.2V	0.2V	0.2V	0V
	4	0V	0V	0V	0V	0V	0V	0.9V
	5	0V	0V	0V	0V	0V	0V	0.2V
	6	12.0V	12.0V	12.0V	11.9V	11.9V	11.9V	10.9V
	8	0V	0V	0V	11.0V	11.0V	11.0V	0V
	9	0V	0V	0V	0V	0V	0V	0.2V
	10	0.1V	0.1V	0.1V	0V	0V	0V	0V
	11	0V	0V	0V	11.0V	11.0V	11.0V	0V
	12	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V
	13	0V	0V	0V	0V	0V	0V	11.9V
	14	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.9V
IC 8	1	0V	0.2V	0V	0.2V	0.2V	0.2V	0.2V
	2	0.1V	0V	0.1V	0V	0V	0V	0V
	3	11.8V	11.6V	11.7V	11.6V	11.6V	11.6V	11.5V
	4	0.1V	0V	0.1V	0V	0V	0V	0V
	5	0V	11.2V	0V	11.4V	11.4V	11.4V	11.1V
	6	11.8V	11.8V	11.8V	11.8V	11.8V	12.0V	11.9V
	8	12.0V	0V	12.0V	0V	0V	0V	12.0V
	9	12.0V	0V	12.0V	0V	0V	0V	12.0V
	10	0V	12.0V	0V	12.0V	12.0V	12.0V	0V
	11	0V	0V	0V	0V	0V	0V	11.9V
	12	0V	12.0V	0V	12.0V	12.0V	12.0V	0V
	13	12.0V	12.0V	0.3V	12.0V	12.0V	12.0V	0.3V
	14	12.0V	12.0V	11.9V	12.0V	12.0V	12.0V	11.9V
IC10	1	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	0.3V
	2	11.5V	0.1V	0.1V	0V	0V	0V	4.4V
	3	1.2V	1.3V	1.3V	1.3V	1.3V	1.3V	1.2V
	8	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.9V

TR NO.	MODE	EE STOP	PB PLAY	REC	CUE	REVW	STILL	EE NON-VIDEO
TR29	B	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V
	C	9.8V	9.8V	9.8V	9.6V	9.6V	9.8V	9.8V
TR30	B	-0.2V	-0.2V	-0.2V	-0.2V	-0.2V	-0.2V	0V
	C	9.8V	9.8V	9.8V	9.7V	9.7V	9.8V	9.8V
	E	0.1V	0.1V	0.1V	0V	0V	0V	11.6V
TR31	B	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.1V
	C	0V	0V	0V	0V	0V	0V	11.7V
	E	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.8V
TR32	B	0.1V	0.1V	0.1V	0.1V	0.1V	0.1V	0V
	C	4.5V	4.5V	4.5V	4.5V	4.5V	4.5V	4.6V
TR33	B	0.1V	0V	0V	0.1V	0.1V	0.1V	11.9V
	C	0V	0V	0V	0V	0V	0V	0.9V
	E	0V	0V	0V	0V	0V	0V	11.9V
TR34	B	0V	0V	0V	0V	0V	0V	0V
	C	4.5V	4.5V	4.5V	4.5V	4.5V	4.5V	4.6V
TR35	B	0V	0V	0.1V	0V	0V	0V	0V
	C	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V
TR36	B	0V	0V	0V	0V	0V	0V	0V
	C	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V
TR42	B	0V	0V	0V	0.6V	0.6V	0.6V	0V
	C	0.1V	0.1V	0.1V	0V	0V	0V	11.5V

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)
INDUCTORS IN μH(K)

VS-1 EG,EG-G,EK,EO VIDEO SCHEMATIC DIAGRAM

NO.15-7 830527C SC

VS-1

P1

IDL 5V	1
$\overline{\text{RESET}}$	2
GND	3
$\overline{\text{S CLK}}$	4
S IN/OUT	5
S OUT/IN	6

TO POWER SUPPLY & SYSCON P3

P2

VOW	1
$\overline{\text{VOB}}$	2
$\overline{\text{V SYNC}}$	3
$\overline{\text{H SYNC}}$	4
INS	5
GND	6

TO VIDEO P15

REMOTE	1
GND	3
IDL 5V	2

TO REMOCON UNIT (RC-R4)

IC2
MB88303

1 $\overline{\text{RESET}}$ — Vcc 22
DA 7 21 7
DA 6 20 6
DA 5 19 5
DA 4 18 4
DA3 17 3
DA2 16 2
DA1 15 1
DA 14 0
ADM 13
LDI 12
4 DO2
5 VOW
6 $\overline{\text{VOB}}$
7 $\overline{\text{VS}}$
8 $\overline{\text{HS}}$
9 EX'TAL
10 X'TAL

R18
VR1(470)
C6
CHARACTER POSITION

EO MODEL
EK MODEL

X1
4.00MC

IC3
MB88401/233K (ENGLISH)
/234K (GERMAN)

IDL5

0 1 KEY OUTPUT CRT ADDRESS/DATA OUT 7 8
9 $\overline{\text{EO}}$ IN
10 $\overline{\text{EK.SEG}}$ IN
11 VS-1 IN
0 1 2 3 KEY OUTPUT 12 13 14 15
16 EX'TAL
17 X'TAL
18 $\overline{\text{RESET}}$
19 $\overline{\text{IRQ}}$
21 GND

V_{DD} 42
V_M 41
LDI OUT 40
ADM OUT 39
$\overline{\text{VTR}}$ OUT 38
LED OUT 33 34 35 36
LED IN 32 31 30 29 28 27 26 25
S. DATA OUT 24
S.DATA IN 23
$\overline{\text{S. CLK}}$ IN 22

0 1 2 3 4 6 7

	0	1	2	3	4	6
0	TAPE SW23	CUE SW17	REVW SW16	T-ON/OFF SW2	F-ON/OFF SW1	D SW12
1	EJECT SW3	FF SW15	REW SW14	STOP SW20	PLAY SW13	REC SW19
2		CLOCK SW5	PRESET SW4	C SW11		A- SW7
3		O-STOP SW22		PROGRAM SW6		A+ SW8

F G H I J K

1 2 3 4 5 6 7 8

IDL5

42 41 40 39 38 33 34 35 36 32 31 30 29 28 27 26 25 24 23 22

TR1
BUFFER

EO MODEL

TR2
BUFFER

TR3
BUFFER

TR4
BUFFER

LED DISPLAY DI2 to 22

O-STOP EJECT REC PLAY PAUSE/STILL POWER FF REW TIMER

DIO

a f g b e c d

10 7 8 13 2 1 11

c — 6
e — 5
d — 4
g — 3
a — 2
f — 1
b — 0

0 to 6

EG,EG-G,EK MODELS

DII

4 5

a f g b e c d

13 14 15 16 3 2 1 12 11 10 9 6 7 8

0 b
1 f
2 a
3 g
4 d
5 e
6 c

EO MODEL

F-ON/OFF SW1 — 4
D SW12 — 6
PAUSE/STILL SW18 — 7
PLAY SW13
REC SW19
A- SW7
B- SW9
A+ SW8
B+ SW10

VS-1 EG,EG-G,EK,EO OPERATION BLOCK DIAGRAM

NO.15-8 830528D

F G H I J K

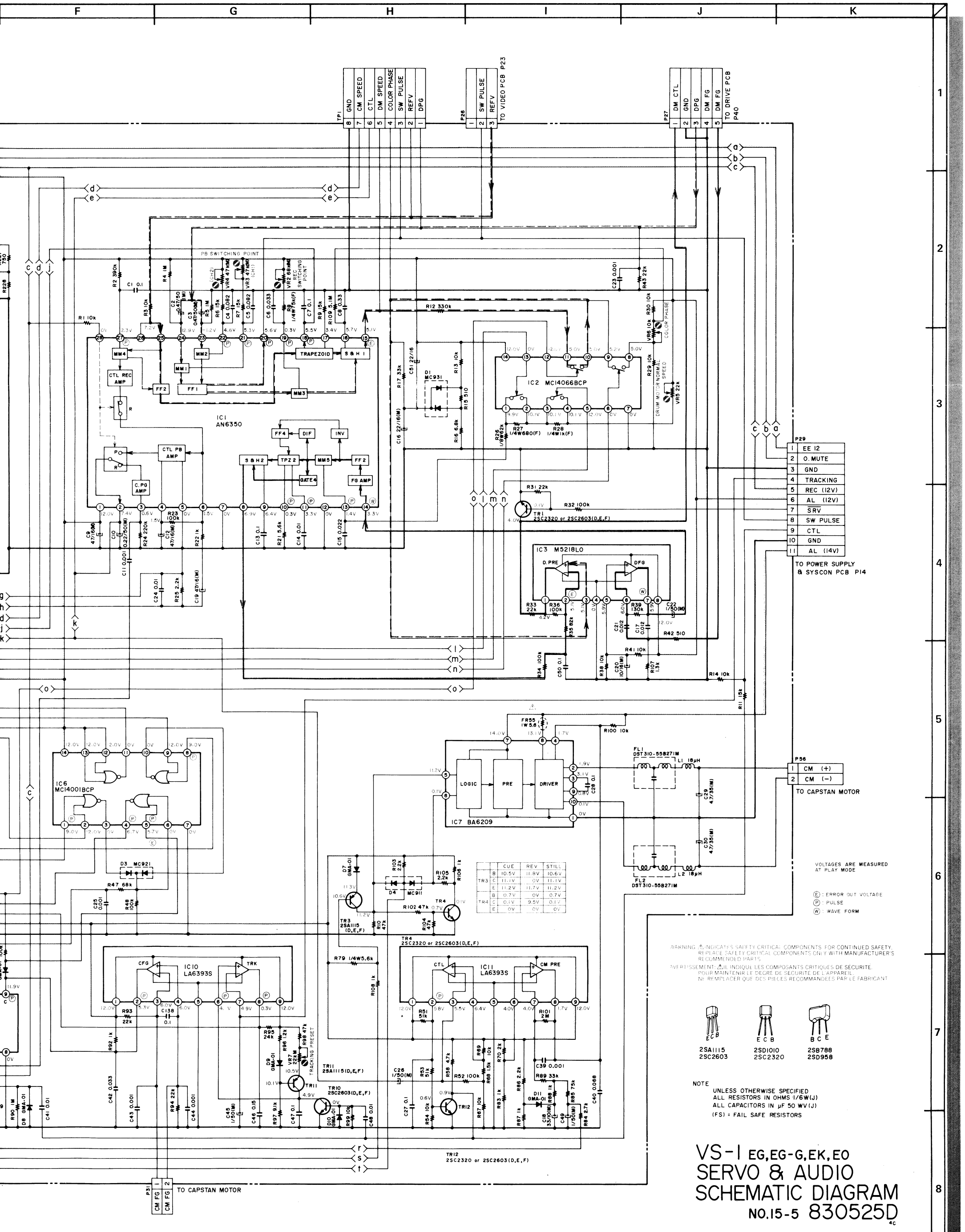
VS-1

DRUM SPEED
DRUM PHASE
CAPSTAN SPEED
CAPSTAN PHASE
=B (POWER SUPPLY) LINE

TO RF BOOSTER P44
AUDIO OUT
P24
TO VIDEO PCB P22
AUDIO IN
AUDIO OUT
P25
FULL ERASE HEAD PCB V1017D5130
H905
FULL ERASE HEAD
H902
SIDE ERASE HEAD
P55
P32
OSC1 0512033
BIAS OSC FREQUENCY
L202 1mH
R225 100k
C226 0.0015
R229 3.6k
R235 3.3k
C229 100/16(M)
C202 10/16(M)
C203 10/16(M)
TR206,208 2SC2320 or 2SC2603(D,E,F)
TR210 2SD1010(R,S,T)
TP208 12.0V 11.8V 11.1V
R226 2.2k
C225 100/16(M)
R221 10k
R236 33k
D201 HZ7A-1
VR209 2.2kB
EE LEVEL
C224 2.2/50(M)
R224 100k
R223 100k
R222 2.2k
R230 22k
10.9V 0V
TR206
R237 100k
C223 0.47/50(M)
0.4V 0V
TR210
REC LEVEL
VR210 10k
L204 5.6mH
R234 5.6k
R216 33k
R217 5.1
C220 0.039
R215 1M
C218 22/16(M)
C219 22/16(M)
C222 4.7/35(M)
C227 22/16(M)
R227 750
R228
C201 220P(K)
VR208 100kB
BIAS VOLTAGE
R231 68k
FL203 70KC
TR201 2SD958(S,T,U)
TR203 2SB788(S,T,U)
R201 1/4W1k
R202 1/4W680
TR202 2SD958(S,T,U)
R203 10k
R204 10k
TR209 2SC2320 or 2SC2603 (D,E,F)
R232 33k
C205 2.2/50 (M)
C206 4.7/35 (M)
C207 0.001
C209 330P
C210 0.012
R209 120k
R210 10k
C211 3.3/50(M)
C212 4.7/35(M)
FL201 15.6KC
FL202 70KC
C215 0.001(P)
VR211 10kB
PB LEVEL
C216 10/16(M)
C214 4.7/35(M)
C213 100/16(M)
C204 1/50(M)
R212 22k
C217 4.7/35(M)
R227 750
R228
IC201 LA7045
LOGIC CTL
MUTE CTL
REC AMP
ALC DETECT
ALC
MIC AMP
EQ AMP
LINE AMP
AUDIO HEAD PEC/PB
H903
10
TEST TERMINAL
P30
REC
PB
CTL HEAD
H904
P33
CTL (G) 1
CTL (+) 2
TO CTL HEAD
AC HEAD PCB V1017A5040
P28
GND 1
2
REV 3
CUE 4
CM STOP 5
MRVS 6
TO MECHA DRIVE PCB P36
R44 10k
R45 4.7k
IC4 MC14011BCP
CUE
Cor R
REV
Cor R
IC5 MC14011BCP
Cor R
IC6 MC14001BCP
R1 10k
R2 390k
C1 0.1
R3 10k
MM4
CTL REC AMP
C.PG AMP
C9 47/16(M)
C10 0.22/50(M)
R24 220k
C11 0.001
C24 0.01
D3 MC921
R47 68k
C25 0.001
R48 10k
CFG
R93 22k
R92 1k
C42 0.033
C43 0.001
P31
CM FG 1
C31 10/16(M)
R56 100k
C32 0.1
R57 22k
C33 0.1
R55 22k
R39 100k
R19 4.7k
R20 10k
VR8 10k
R37 22k
R40 100k
TR5 2SC2320 or 2SC2603(D,E,F)
TR6 2SC2320 or 2SC2603(D,E,F)
CAPSTAN MOTOR SPEED AT CUE & REV (QUICK FINDER) MODE
D12 GMA-01
FF1
MM1
TPZ 1
S & H
IC8 AN6341N
FF2
MM2
TPZ 2
S & H
R66 560k
D6 GMA 01
IC9 TC4520BP
C R
E
Q0 Q
Q1 Q
Q2 Q
Q3 Q
R R
R61 1/4W 10k
R71 1/4W 100k
R72 5.6k
TR7 2SA1115(D,E,F)
R76 0k
R78 1/4W 220k
R82 47k
TR8
TR13
R77 1/4W 100k
TR9
R49 100k
R50 22k
D8 GMA-01
R90 1M
C41 0.001
VR1 47K
R62 180k
C34 47/16(M)
CAPSTAN MOTOR NORMAL SPEED
C35 0.033
C36 0.033
R64 1k
R63 1M
R18 22k
C37 0.01
R65 1/4W1.5M
C38 47/16(M)
R74 390
R73 1/4W 1.8k
R75 22k
R80 100k
R81 100k
TR8,9,13 2SC2320 or 2SC2603(D,E,F)

SERVO/AUDIO PCB V1017B5010 (6ED)

IC	PIN	PB	CUE	REVW	STILL	REC
IC2	1	10.4 V	10.6 V	10.2 V	10.4 V	10.4 V
	2	10.6 V	10.6 V	10.3 V	10.6 V	10.6 V
	3	10.6 V	10.6 V	10.3 V	10.6V	10.6 V
	4	10.6 V	10.6 V	10.7 V	10.6 V	10.6 V
	5	12.0 V	12.0 V	0 V	12.0 V	12.0 V
	6	0 V	12.0 V	12.0 V	0 V	0 V
	7	0 V	0 V	0 V	0 V	0 V
	8	5.0 V	5.0 V	5.0 V	5.0 V	4.9 V
	9	5.2 V	4.9 V	4.9 V	E	E
	10	5.0 V	5.0 V	5.0 V	E	E
	11	5.0 V	E	E	E	E
	12	12.0 V	0 V	0 V	12.0 V	12.0 V
	13	0 V	12.0 V	0 V	0 V	0 V
	14	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
IC4	1	0 V	0 V	12.0 V	0 V	0 V
	2	0 V	0 V	12.0 V	0 V	0 V
	3	12.0 V	12.0 V	0 V	12.0 V	12.0 V
	4	12.0 V	0 V	0 V	12.0 V	12.0 V
	5	0 V	12.0 V	12.0 V	0 V	0 V
	6	0 V	12.0 V	12.0 V	0 V	0 V
	7	0 V	0 V	0 V	0 V	0 V
	8	12.0 V	12.0 V	0 V	12.0 V	12.0 V
	9	12.0 V	0 V	12.0 V	12.0 V	12.0 V
	10	0 V	12.0 V	12.0 V	0 V	0 V
	11	12.0 V	0 V	12.0 V	12.0 V	12.0 V
	12	0 V	12.0 V	0 V	0 V	0 V
	13	0 V	12.0 V	0 V	0 V	0 V
	14	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
IC5	1	6.0 V	2.6 V	2.6 V	0 V	6.0 V
	2	6.0 V	5.1 V	5.1 V	12.0 V	6.0 V
	3	9.0 V	11.7 V	11.7 V	12.0 V	9.0 V
	4	9.0 V	9.6 V	9.6 V	12.0 V	9.0 V
	5	6.0 V	0 V	4.8 V	0 V	8.2 V
	6	6.0 V	5.0 V	5.0 V	12.0 V	6.0 V
	7	0 V	0 V	0 V	0 V	6.0 V
	8	12.0 V	12.0 V	12.0 V	12.0 V	0 V
	9	0 V	12.0 V	12.0 V	0 V	12.0 V
	10	12.0 V	0 V	0 V	12.0 V	0 V
	11	12.0 V	12.0 V	12.0 V	12.0 V	0 V
	12	0 V	0 V	0 V	0 V	12.0 V
	13	0 V	12.0 V	12.0 V	0 V	12.0 V
	14	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
IC6	1	9.0 V	11.7 V	11.7 V	0 V	9.0 V
	2	12.0 V	0 V	0 V	12.0 V	12.0 V
	3	0 V	0.2 V	0.2 V	0 V	0 V
	4	6.9 V	11.7 V	11.7 V	11.9 V	6.9 V
	5	E	0.6 V	0.6 V	0.9 V	5.3 V
	6	0.6 V	1.2 V	1.2 V	0.9 V	0.3 V
	7	0 V	0 V	0 V	0 V	0 V
	8	9.0 V	9.6 V	9.6 V	12.0 V	9.0 V
	9	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
	10	0 V	0 V	0 V	0 V	0 V
	11	0 V	0 V	0 V	0 V	0 V
	12	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
	13	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V
	14	12.0 V	12.0 V	12.0 V	12.0 V	12.0 V


TP1
8 GND
7 CM SPEED
6 CTL
5 DM SPEED
4 COLOR PHASE
3 SW PULSE
2 REFV
1 DPG
P26
1
2 SW PULSE
3 REFV
TO VIDEO PCB P23
P27
1 DM CTL
2 GND
3 DPG
4 DM FG
5 DM FG
TO DRIVE PCB P40
PB SWITCHING POINT
REC SWITCHING POINT
R1 10k
R2 390k
C1 0.1
R4 1M
R3 10k
C2 0.47/50
C3 0.47/50
R5 1M
R6 15k
C4 0.082
R7 15k
C5 0.082
C6 0.033
R8 1/4W75k(F)
C7 0.1
R9 15k
R10 5.1M
C8 0.33
VR4 47kΩ (CH2)
VR3 47kΩ (CH1)
VR2 68kΩ
R12 330k
C23 0.001
R43 22k
R30 10k
VR6 10k
COLOR PHASE
R29 10k
VR5 22k
DRUM MOTOR NORMAL SPEED
IC2 MC14066BCP
R17 33k
C51 22/16
D1 MC931
R13 10k
R15 510
C16 22/16(M)
R16 6.8k
R26 1/8W62k
R27 1/4W680(F)
R28 1/4W1k(F)
IC1 AN6350
MM4
MM2
MM1
MM3
FF2
FF1
TRAPEZOID
S & H 1
CTL REC AMP
CTL PB AMP
C.PG AMP
FF4
DIF
INV
S & H 2
TPZ 2
MM5
GATE4
FG AMP
R23 100k
C9 47/16(M)
C10 0.22/50(M)
C11 0.001
R24 220k
C12 47/16(M)
R22 1k
C13 0.1
R21 5.6k
C14 0.001
C15 0.022
C24 0.001
R25 2.2k
C19 47/16(M)
R31 22k
R32 100k
TR1 2SC2320 or 2SC2603(D,E,F)
IC3 M5218LO
D.PRE
DFG
R33 22k
R36 100k
R35 82k
C21 0.0012
C17 0.012
R42 510
R41 10k
R34 100k
C50 0.1
R38 10k
C20 10/16(M)
R107 1.3k
R14 10k
R11 15k
P29
1 EE 12
2 O. MUTE
3 GND
4 TRACKING
5 REC (12V)
6 AL (12V)
7 SRV
8 SW PULSE
9 CTL
10 GND
11 AL (14V)
TO POWER SUPPLY & SYSCON PCB P14
IC6 MC14001BCP
D3 MC921
R47 68k
C25 0.001
R48 100k
FR55 1W5.6
R100 10k
FL1 DST310-558271M
L1 18μH
C29 4.7/35(M)
C30 4.7/35(M)
L2 18μH
FL2 DST310-558271M
P56
1 CM (+)
2 CM (−)
TO CAPSTAN MOTOR
IC7 BA6209
LOGIC
PRE
DRIVER
C28 0.1
D7 GMA-01
R103 2.2k
D4 MC911
R105 2.2k
R106 1k
R102 47k
TR4
R104 47k
R10 47k
TR3 2SA1115 (D,E,F)
TR4 2SC2320 or 2SC2603(D,E,F)
R79 1/4W5.6k
R108 1k
IC10 LA6393S
CFG
TRK
R93 22k
C138 0.1
R92 1k
R95 24k
R96 1.2k
R98 47k
VR7 22k
TRACKING PRESET
D9 GMA-01
TR11 2SA1115(D,E,F)
TR10 2SC2603(D,E,F)
D10 GMA-01
R99 10k
C48 0.01
C42 0.033
C43 0.001
R94 22k
C44 0.001
C45 1/50(M)
C46 0.15
R97 9.1k
C47 0.1
R90 1M
D8 GMA-01
C41 0.01
IC11 LA6393S
CTL
CM PRE
R51 5.1k
R101 2M
C26 1/50(M)
R53 5.1k
R58 4.7k
R52 100k
R69 10k
R68 1.5k
R70 2.2k
C27 0.1
R54 10k
TR12
R67 10k
R93 1k
R86 2.2k
C39 0.001
R89 33k
D11 GMA-01
R88 1k
R85 75k
C49 1/50(M)
R84 2.7k
C40 0.068
TR12 2SC2320 or 2SC2603(D,E,F)
P31
1 CM FG
2 CM FG
TO CAPSTAN MOTOR
CUE REV STILL
TR3 B 10.5V 11.8V 10.6V
C 11.1V 0V 11.1V
E 11.2V 11.7V 11.2V
TR4 B 0.7V 0V 0.7V
C 0.1V 9.5V 0.1V
E 0V 0V 0V
VOLTAGES ARE MEASURED AT PLAY MODE
Ⓔ : ERROR OUT VOLTAGE
Ⓟ : PULSE
Ⓦ : WAVE FORM
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT
ECB 2SA1115 2SC2603
ECB 2SD1010 2SC2320
BCE 2SB788 2SD958
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)
(FS) = FAIL SAFE RESISTORS
VS-1 EG,EG-G,EK,EO
SERVO & AUDIO
SCHEMATIC DIAGRAM
NO.15-5 830525D
4C

REC,EE
REC,EE
REC,EE
PB
PB
REC,EE
REC,EE
PB
REC,EE
ALL
REC,EE
REC
REC
REC, PB, EE
PB
REC, EE
PB
REC, EE
PB
PB
REC, EE
PB
REC, EE
PB
PB
PB
PB
REC, EE
PB
PB
REC, EE
PB
PB
REC, PB, EE
PB
(TR311Ⓑ)
PB
PB
REC, PB, EE
PB
(TR308Ⓑ)
FL1
1.4MHz
VR2
REC FM CURRENT
VR1 VR3
WHITE DARK
CLIP CLIP
TR1
EF
TP21
IC1 AN6310
WHITE DARK CLIP
CLP
DET
AGC
FM MOD
PRE EMPHA
CLR
VIDEO AMP
B/W SW
VIDEO AMP
C6
VC1
TR3
EF
EE12
EE12
VR5
DEVIATION
TP5
NON LINIAR EMPHASIS
D3
D4
Y SIGNAL
FL2
3.4MHz
AL12
VR6
B/C CLIP
TR5
CLIP
TR6
EF
AL12
IC7
NON VIDEO
"L"
AL12
IC7
VR7
EE LEVEL
IC7
HD14053BP
TR16
EF
TR17
EF
VIDEO AMP
EE AMP
SW
COLOR MIX
SWB LIM
IC2 HA11703
SYNC SEP
LIMIT
DELAY
TR18
EE12
"ON"
TP10
TP9
C55
TR37
AMP
TP8
AL12
FL7
4.43MHz
TP11
FL8
-3dB
1.5MHz
ACC
BM
6dB UP/DOWN
PB AMP
PB
REC
REC BURT GATE
ACC DET
REC
PB
PB BURST GATE
PB OUT AMP
PB
REC
REC OUT AMP
CHROMA(LOW) 625kHz
IC3
AN6360
TP13
TP12
FL6
4.43MHz
BPF
CHROMA SIGNAL
TR38
AMP
DL1
2H DL
TR40
SECAM "ON"
TR39
SECAM "OFF"
TP25
VR11
PB CHROMA
VR10
REC CHROMA
CHROMA LOW (625kHz) SIGNAL
Y(FM) SIGNAL
VR12
AFC
TP18
PI-CON
VCO
CW OUT
PAL/PG
1/4
90° ROTARY
1/40
IC4 AN6362
SYNC SEPA
AMP
AL12
SW'ING PULSE
TR313
AMP
PB12
IC301
AN6326
VCC
PG AMP
DOC
TR301
TR302
1st AMP
HEAD SW
VIDEO HEAD
CH1
CH2
P21
R301
R314
L308
C326
LPF
6.5MHz
TR305
EF
R317
C327
HPF
TP23
TR306
4.8MHz PEAKING
L310
C330
8MHz TRAP
TR307
EF
R335
L311
C341
LPF
TR308
MIX
DL301
1H DL
R349
C332
C333
HPF
TR311
R327
C334
PHASE CORRECT
L302, C322
2.8MHz PHASE CORREC
TR304
L304, C321
CHROMA TRAP
AGC AMP
COLOR AMP
FL5
LCB59
TR315
EF
1
2
3
4
5
6
7
8
A
B
C
D
E
F

VS-1 EK,EO EG,EG-G VIDEO BLOCK DIAGRAM

NO. 15-6 830526C 2C

PB

PB

PB

REC, EE

PB (TR19 Ⓑ)

ALL

REC, EE

PB

PB

PB

ALL

REC, EE

PB

REC, EE

PB

PB (TR44 Ⓔ)

PB (TR22 Ⓑ)

REC, PB, EE

PB

PB

PB

PB

REC, PB, EE

PB (TR311 Ⓑ)

REC, EE

REC, EE

REC, PB, EE

REC

REC

PB (TR308 Ⓑ)

PB

PB

TP1 VIDEO IN

TP2 VIDEO OUT

TP3 RF OUT

P15 1 VOW, 2, 3 V. SYNC, 4 H. SYNC, 5 INS

P23 3, 2, 1 REF. V

P16 1 VP, 2 VJ, 3 HP

POWER & SYSCON

TRICK PLAY "H"

NON VIDEO "H"

EE 12

REC 12

IC2 HA11703 — VIDEO AMP, EE AMP, SW, COLOR MIX, SWB LIM, LIMIT, SYNC SEP, LIMIT, DELAY, MPX

IC4 AN6362 — P-CON, VCO, CW OUT, PAL/PG, 1/4, 90° ROTARY, 1/40, SYNC SEPA, AMP

IC5 AN6371 — PHASE SHIFT, APC P-COM, KILLER P-COM, SW, KILLER AMP, X'TAL VCO, BM, FL9 5.06MHz

IC6 AN6342 — OSC, COUNT DOWN, LOCAL OSC, 4.433619MHz

IC7 HD14053BP — NON VIDEO, "L"

IC8 MC14001BCP

IC9 MC14025BCP

IC10 — COMP

IC302 AN6307 — OUTPUT, AMP, MIX

IC303 TA7060AP — 1st LIMITTER

TR6 EF; TR7 EF; TR8 BUZZ LEVEL; TR9 CHARACTOR ADD; TR10 AMP; TR12 EF; TR13 INV; TR14 BUFFER; TR15 BUFFER; FL3 DELAY EQ

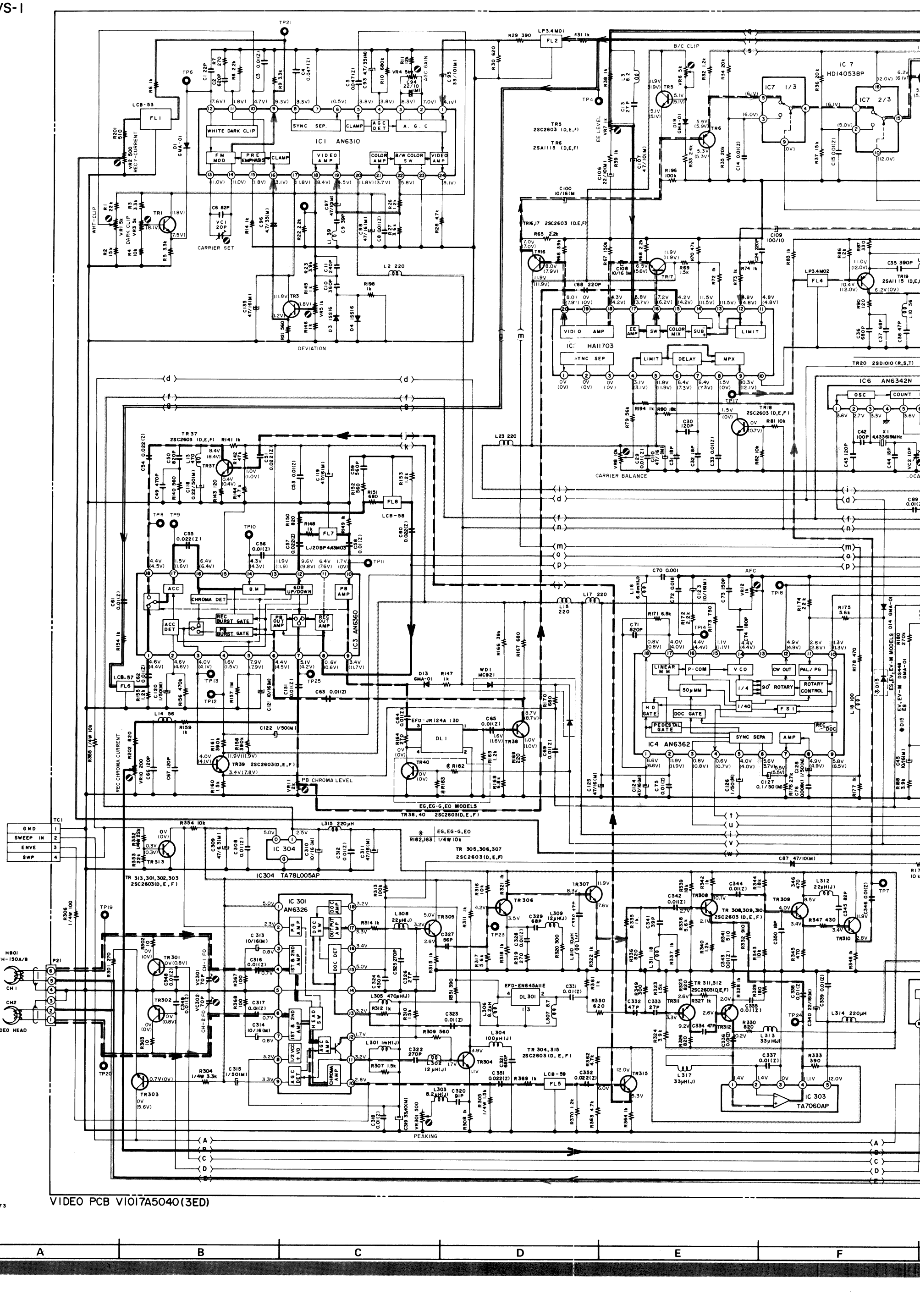
TR16 EF; TR17 EF; FL4 3.3MHz; TR19 DE-EMPHA, 3.7MHz TRAP, PICTURE CONT; TR22 EF; VR9 PB Y LEVEL; TR44 EF

TR18; TR28 AMP; TR29 AMP; TR30 SAMPL; TR31 INV; TR32 AMP; TR33; TR34 AMP; TR35 AMP; TR36 AMP; TR42; TR307 EF; TR308 MIX; TR309, R347 L312, C345 3.7MHz PHASE CORRECTION; TR310 EF; TR311 R327 C334 PHASE CORRECT; TR312 AMP; TR314 EF; R335 L311 C341 LPF; R349 C332 C333 HPF

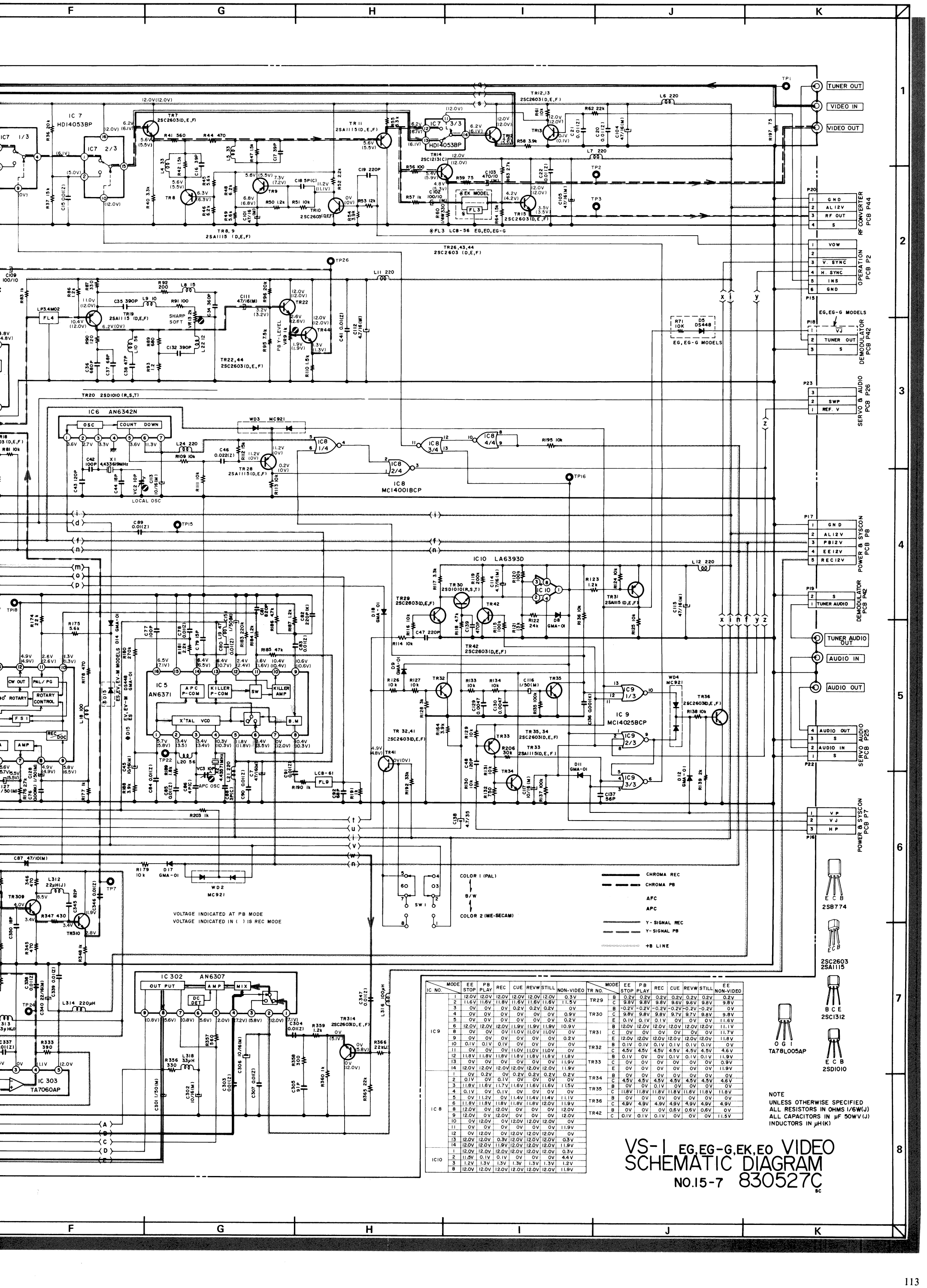
VR6 B/C CLIP; VR7 EE LEVEL; VR12 AFC; VC1 VC2 VC3 APC; C33; C34; D9; D12; WD4

50Hz; 4.433619MHz; 5.06MHz; (40 + 1/8) fH; (625kHz) SIGNAL; M) SIGNAL

VS-I



VIDEO PCB V1017A5040(3ED)



IC NO.	MODE	EE STOP	PB PLAY	REC	CUE	REVW	STILL	NON-VIDEO
IC9	1	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	0.3V
	2	11.6V	11.6V	11.8V	11.6V	11.6V	11.6V	11.5V
	3	0V	0V	0V	0.2V	0.2V	0.2V	0V
	4	0V	0V	0V	0V	0V	0V	0.9V
	5	0V	0V	0V	0V	0V	0V	0.2V
	6	12.0V	12.0V	12.0V	11.9V	11.9V	11.9V	10.9V
	8	0V	0V	0V	11.0V	11.0V	11.0V	0V
	9	0V	0V	0V	0V	0V	0V	0.2V
	10	0.1V	0.1V	0.1V	0V	0V	0V	0V
	11	0V	0V	0V	11.0V	11.0V	11.0V	0V
	12	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V
	13	0V	0V	0V	0V	0V	0V	11.9V
	14	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.9V
IC 8	1	0V	0.2V	0V	0.2V	0.2V	0.2V	0.2V
	2	0.1V	0V	0.1V	0V	0V	0V	0V
	3	11.8V	11.6V	11.7V	11.6V	11.6V	11.6V	11.5V
	4	0.1V	0V	0.1V	0V	0V	0V	0V
	5	0V	11.2V	0V	11.4V	11.4V	11.4V	11.1V
	6	11.8V	11.8V	11.8V	11.8V	11.8V	12.0V	11.9V
	8	12.0V	0V	12.0V	0V	0V	0V	12.0V
	9	12.0V	0V	12.0V	0V	0V	0V	12.0V
	10	0V	12.0V	0V	12.0V	12.0V	12.0V	0V
	11	0V	0V	0V	0V	0V	0V	11.9V
	12	0V	12.0V	0V	12.0V	12.0V	12.0V	0V
	13	12.0V	12.0V	0.3V	12.0V	12.0V	12.0V	0.3V
	14	12.0V	12.0V	11.9V	12.0V	12.0V	12.0V	11.9V
IC10	1	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	0.3V
	2	11.5V	0.1V	0.1V	0V	0V	0V	4.4V
	3	1.2V	1.3V	1.3V	1.3V	1.3V	1.3V	1.2V
	8	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.9V

TR NO.	MODE	EE STOP	PB PLAY	REC	CUE	REVW	STILL	EE NON-VIDEO
TR29	B	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V
	C	9.8V	9.8V	9.8V	9.6V	9.6V	9.8V	9.8V
TR30	B	-0.2V	-0.2V	-0.2V	-0.2V	-0.2V	-0.2V	0V
	C	9.8V	9.8V	9.8V	9.7V	9.7V	9.8V	9.8V
	E	0.1V	0.1V	0.1V	0V	0V	0V	11.6V
TR31	B	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.1V
	C	0V	0V	0V	0V	0V	0V	11.7V
	E	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	11.8V
TR32	B	0.1V	0.1V	0.1V	0.1V	0.1V	0.1V	0V
	C	4.5V	4.5V	4.5V	4.5V	4.5V	4.5V	4.6V
TR33	B	0.1V	0V	0V	0.1V	0.1V	0.1V	11.9V
	C	0V	0V	0V	0V	0V	0V	0.9V
	E	0V	0V	0V	0V	0V	0V	11.9V
TR34	B	0V	0V	0V	0V	0V	0V	0V
	C	4.5V	4.5V	4.5V	4.5V	4.5V	4.5V	4.6V
TR35	B	0V	0V	0.1V	0V	0V	0V	0V
	C	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V	11.8V
TR36	B	0V	0V	0V	0V	0V	0V	0V
	C	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V
TR42	B	0V	0V	0V	0.6V	0.6V	0.6V	0V
	C	0.1V	0.1V	0.1V	0V	0V	0V	11.5V

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)
INDUCTORS IN μH(K)

VS-1 EG,EG-G,EK,EO VIDEO SCHEMATIC DIAGRAM

NO.15-7 830527C SC

VS-1

P1

IDL 5V	1
$\overline{\text{RESET}}$	2
GND	3
$\overline{\text{S CLK}}$	4
S IN/OUT	5
S OUT/IN	6

TO POWER SUPPLY & SYSCON P3

P2

VOW	1
$\overline{\text{VOB}}$	2
$\overline{\text{V SYNC}}$	3
$\overline{\text{H SYNC}}$	4
INS	5
GND	6

TO VIDEO P15

REMOTE	1
GND	3
IDL 5V	2

TO REMOCON UNIT (RC-R4)

IC2
MB88303

1 $\overline{\text{RESET}}$ — Vcc 22
4 DO2 — DA7 21 7
5 VOW — DA6 20 6
6 $\overline{\text{VOB}}$ — DA5 19 5
7 $\overline{\text{VS}}$ — DA4 18 4
8 $\overline{\text{HS}}$ — DA3 17 3
9 EX'TAL — DA2 16 2
10 X'TAL — DA1 15 1
DA 14 0
ADM 13
LDI 12

R18
VR1(470)
C6
CHARACTER POSITION

EO MODEL
EK MODEL

IC3
MB88401/233K (ENGLISH)
/234K (GERMAN)

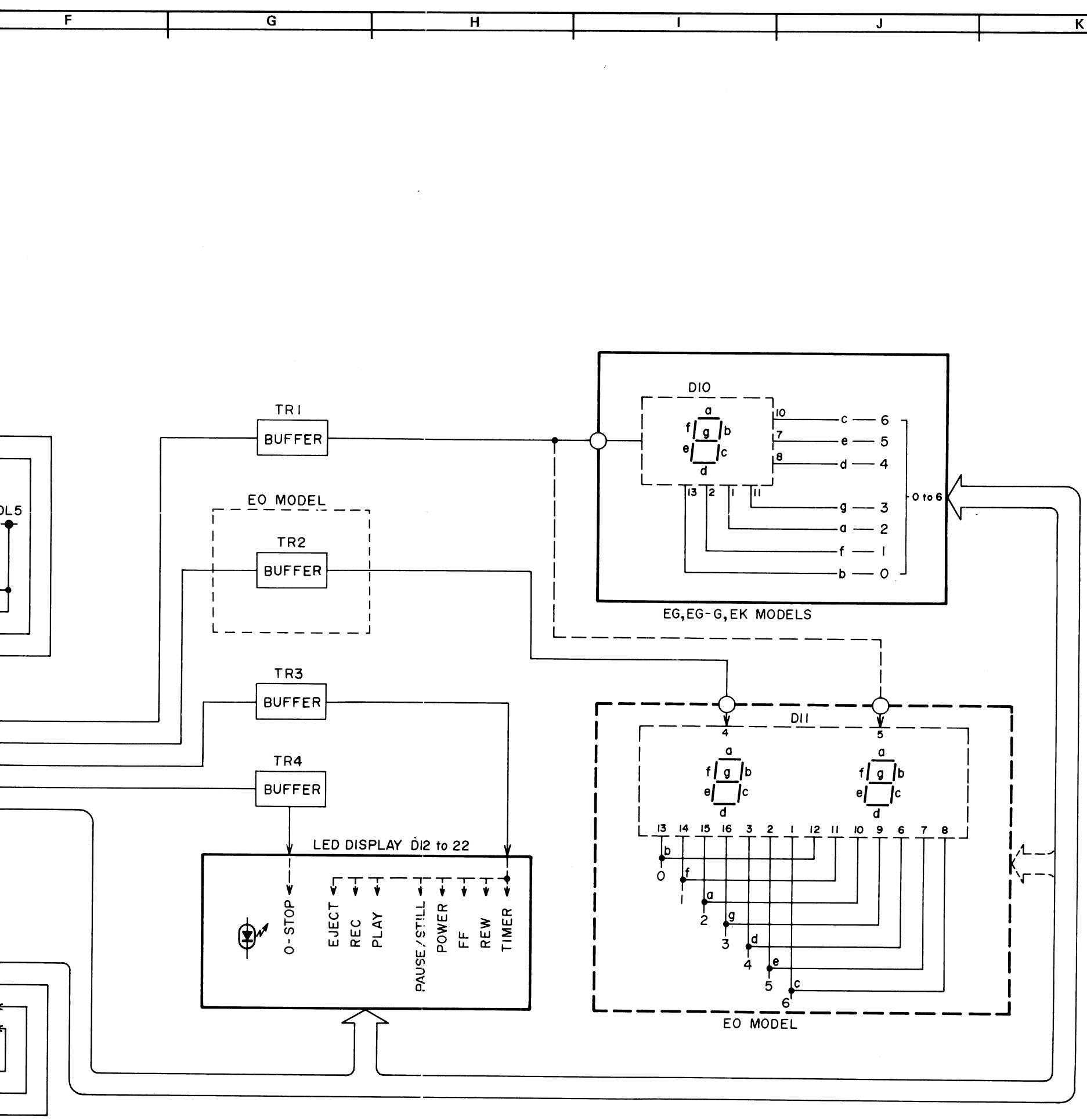
0 1 — KEY OUTPUT
1 2
2 3
3 4
4 5
5 6
6 7
7 8 — KEY OUTPUT CRT ADDRESS/DATA OUT
9 $\overline{\text{EO IN}}$
10 $\overline{\text{EK.SEG IN}}$
11 VS-1 IN
0 12
1 13
2 14
3 15 — KEY OUTPUT
16 EX'TAL
17 X'TAL
18 $\overline{\text{RESET}}$
19 $\overline{\text{IRQ}}$
21 GND

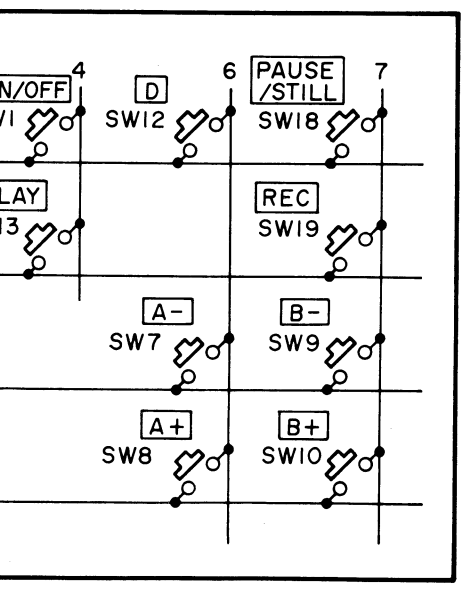
X1
4.00MC

IDL5
V_{DD} 42
V_M 41
LDI OUT 40
ADM OUT 39
$\overline{\text{VTR}}$ OUT 38
LED OUT 33 34 35 36
LED IN 32 31 30 29 28 27 26 25
S. DATA OUT 24
S. DATA IN 23
$\overline{\text{S. CLK}}$ IN 22

0 1 2 3 4 6 7

	0	1	2	3	4	6	
0	TAPE SW23	CUE SW17	REVW SW16	T-ON/OFF SW2	F-ON/OFF SW1	D SW12	PAUSE /STILL SW18
0 1	EJECT SW3	FF SW15	REW SW14	STOP SW20	PLAY SW13		REC SW19
2 3		CLOCK SW5	PRESET SW4	C SW11		A- SW7	B- SW9
2							
3		O-STOP SW22		PROGRAM SW6		A+ SW8	B+ SW10

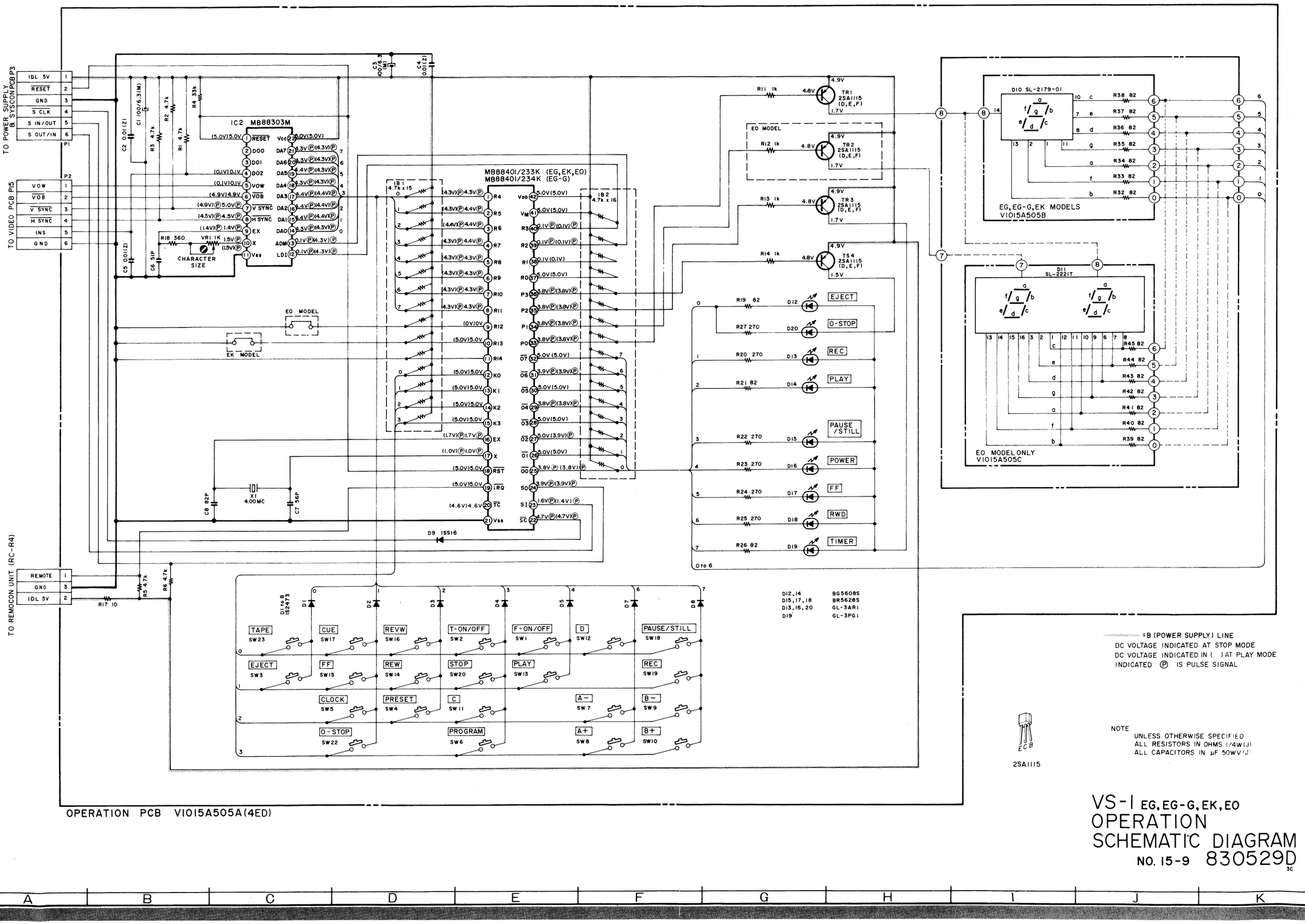




VS-1 EG, EG-G, EK, EO OPERATION BLOCK DIAGRAM

NO. 15-8 830528D

VS-1



OPERATION PCB V1015A505A(4ED)

VS-1 EG, EG-G, EK, EO OPERATION SCHEMATIC DIAGRAM

NO. 15-9 830529D 3c

VS-I

TO EJECTER

EM (-)	8
EM (+)	7
GND	6
CSW 3	5
CSW 2	4
CSW 1	3
START SENSOR	2
END SENSOR	1

P38 P37

M904 EJECT MOTOR

IC 1 M8L8243M

IDL5

REC SAFETY, LSW A2, LSW B1, $\overline{SS}$, $\overline{ES}$, PRG 2, DATA 4, 3, 2, 1, $\overline{REVW}$, $\overline{CUE}$

Vcc, CSW 1, CSW 2, CSW 3, M.$\overline{RVS}$, EM.STP, LM.STP, PL-$\overline{ON}$, CM.STP

RS SW, LSW A2, LSW B1, A, B

TO POWER & SYS CON

PRG 2	7
IDL5V	6
DATA 4	5
DATA 3	4
DATA 2	3
DATA 1	2
GND	1

P4 P34

IC2 M54514AP

TR1

IC3 M5453P

C4

D3, D15, D16, D5, AL14

IC4 BA6109

V OUT 1, V OUT 2, F IN, R IN, VR

D7, TR2, D18

SL901 PLUNGER SOLENOID

IC5 BA6109

M902 LOADING MOTOR

AL14 "ON" TR3

D8, D14, D10, D6

D11, C12

IC6 BA6109

M903 REEL MOTOR

EF TR4, TR7, EF TR8, D9

UN LOADING "ON" TR6

D17 GMA-01

T.R.P, S.R.P

TR9 IN901 OPEN "OFF"

IN901

TO SERVO & AUDIO P28 P36

6	5	4	3	2	1
M RVS	CM STOP	CUE	REV		GND

TO POWER & SYS CON P6 P35

1	2	3	4	5	6	7
GND	GND	AL 14V	RM PWR	B DWN	SRP	TRP

VS-I EG, EG-G, EK, EO MECHA DRIVE BLOCK DIAGRAM

NO.15-10 830532C

VS-1

MECHA DRIVE PCB V1015A502A(5ED)

SLEEP PCB
END S RS SW
22 23

TO EJECTER P38 P37
EM (−) 8
EM (+) 7
GND 6
C SW3 5
C SW2 4
C SW1 3
START SENSOR 2
END SENSOR 1

RS SW SW1D C3 0.01
L SW A2 SW1C C2 0.01
L SW B1 SW1B C1 0.01

P4 P34
PRG 2 7
IDL 5V 6
DATA 4 5
DATA 3 4
DATA 2 3
DATA 1 2
GND 1
TO POWER & SYSCON PCB

IC1 MBL8243M
1 RS SW
2 L SW A2
3 L SW B1
4 SS
5 ES
6 GND
7 PRG 2
8 4
9 3
10 2
11 1
12 GND
Vcc 24
C SW1 23
C SW2 22
C SW3 21
M.RVS 20
EM.STP 19
LM.STP 18
PL-ON 17
CM.STP 16
15
REVW 14
CUE 13
DATA

181 M-3724

R3 10k
R2 10k
R4 1/4W 10k
R1 1k
R5 1/4W 10k
D1 1S2473
D2 1S2473
R6 1/4W 47k
R7 1/4W 47k
C17 0.01
C18 0.01
C20 100/6.3(M)

IC2 M54514AP
R9 10k
TR1 2SA1309 (Q,R,S)
R8 4.7k
C19 0.01

IC3 M54532P
R14 15k
R15 5.6k
R16 1k
C4 22/35(M)
D15 1S2473
D3 GMA-01
D16 HZ7B-2
D4 GMA-01

IC4 BA6109
C5 10/25(M)
C6 10/25(M)
C7 0.01
TR2 2SA1309 (Q,R,S)
D7 MC911
R17 10k
R19 2k
R18 10k
R44 2k
D5 HZ20CP
D18 GMA-01
C21 47/16(M)
SL901 PLUNGER SOLENOID

IC5 BA6109
C10 0.01
C8 10/25(M)
C9 10/25(M)
TH1 B03R3N
M902 LOADING MOTOR
D8 MC921
TR3 2SA1309(Q,R,S)
R23 2.7k
R12 1k
R21 10k
R22 10k
R24 13k

R13 15k
R10 4.7k
D6 1S2473
R11 10k
D14 1S2473
R37 1/4W 10k
R38 1/4W 10k

IC6 BA6109
R25 1/4W 100
R26 1k
R27 4.7k
TR4 2SC3311 (Q,R,S)
TR7 2SA1282A(E,F,G)
TR8 2SA1309(Q,R,S)
TR6 2SC3311(Q,R,S)
R31 7.5k
R33 10k
R34(FS) 1/2W 680
R36 (FS) 1/2W 22(K)
C14 10/25(M)
C13 10/25(M)
D9 GMA-01
R30 43k
R29 4.7k
C12 0.01
D11 MC921
D10 HZ3FA
C11 4.7/25(M)
R28 1k
R35 1k
M903 REEL MOTOR

2SA1282A
2SA1309
2SC3311

HALL IC (R) PCB V1017D5070
TRP DN6838 Vcc GND OUT
HALL IC (L) PCB V1017D5080
SRP DN6838 Vcc GND OUT
21 20 19 18 17 16

C15 0.01
R42 15k
C16 0.01
R43 15k
R41 120
TR9 2SA1309(Q,R,S)
R39 2.2k
R40 7.5k
15 14
IN901 START/END SENSOR LAMP

P28 P36
M RVS 6
CM STOP 5
CUE 4
REV 3
GND 2
1
SERVO & AUDIO PCB

P6 P35
GND 1
GND 2
AL 14V 3
RM PWR 4
B DWN 5
SRP 6
TRP 7
POWER & SYSCON PCB

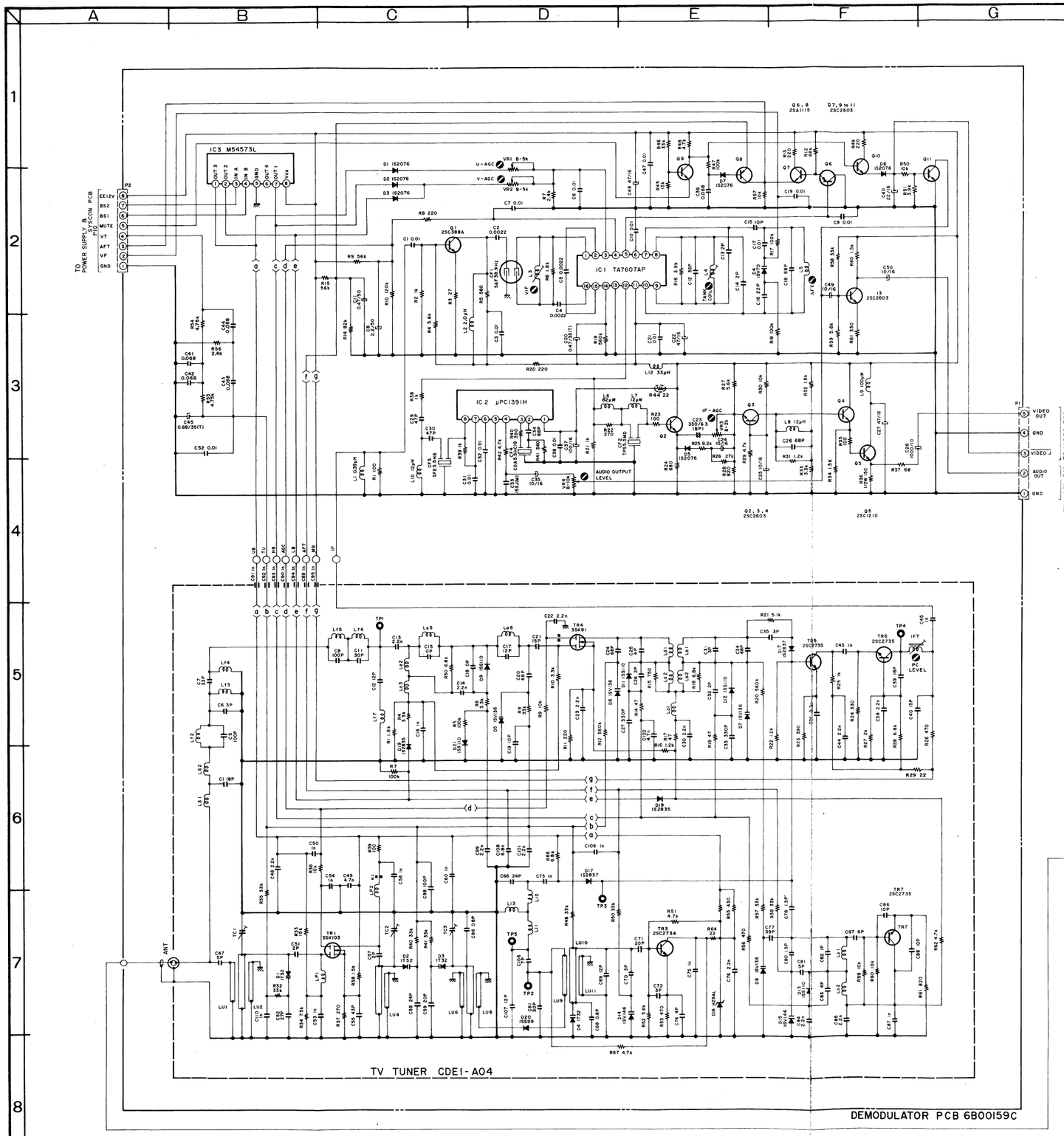
D17 GMA-01

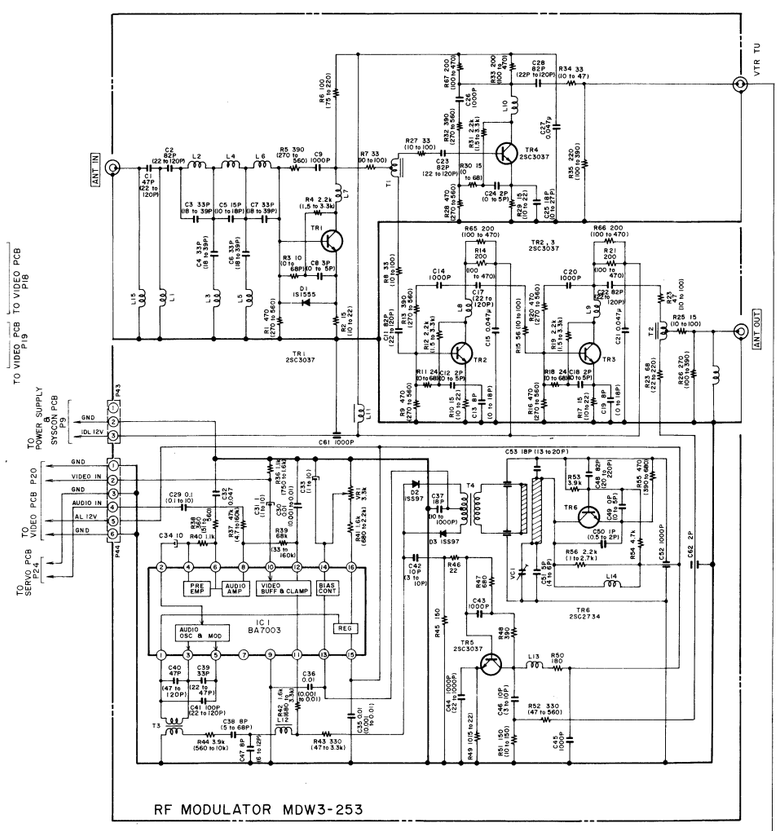
VOLTAGE INDICATED AT PB MODE

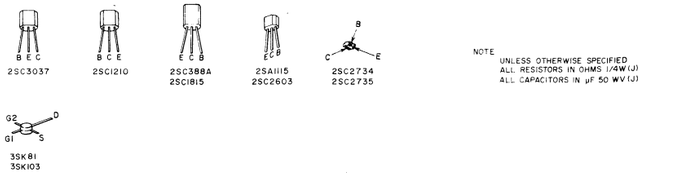
=B (POWER SUPPLY) LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

VS-1 EG, EG-G, EK, EO
MECHA DRIVE SCHEMATIC DIAGRAM
NO.15-11 830533C 2C







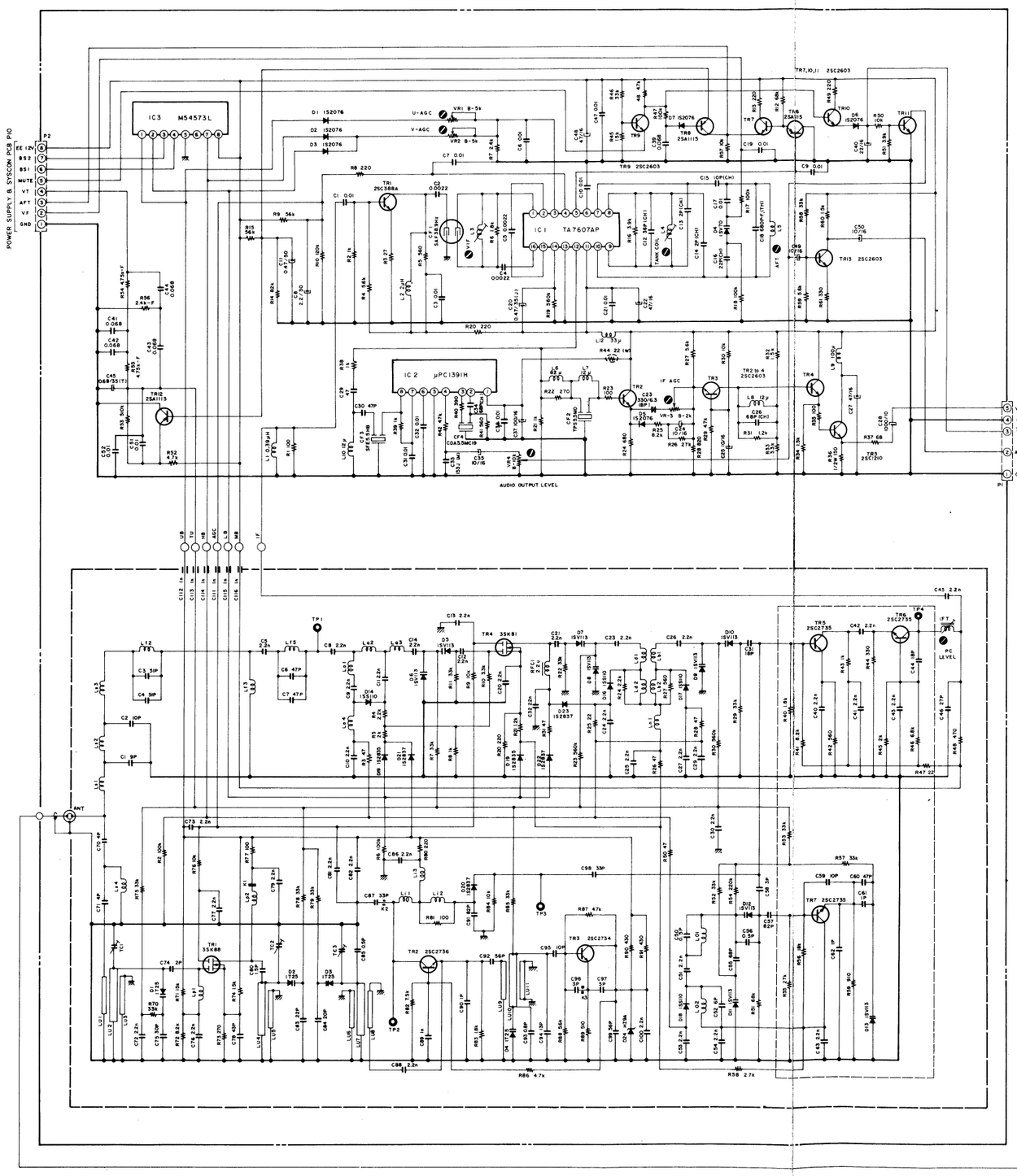
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (/4W(J)
ALL CAPACITORS IN μF 50 WV(J)

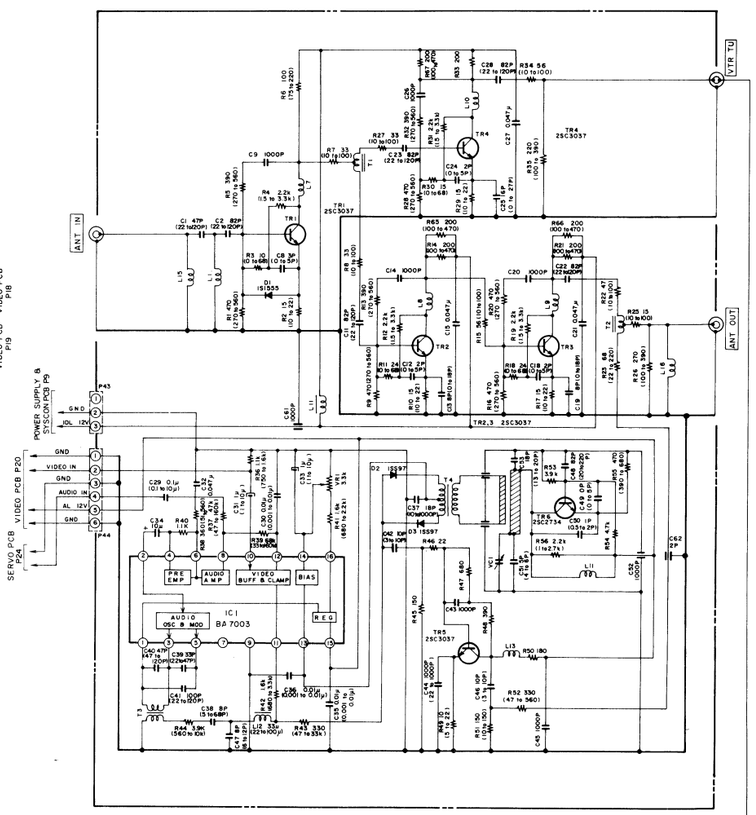
VS-1EG,EG-G DEMODULATOR SCHEMATIC DIAGRAM

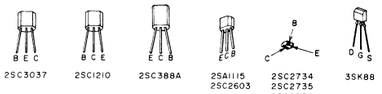
NO. 15-12 830534C

VS-1EK
DEMODULATOR
SCHEMATIC DIAGRAM
NO.15-13 830535B

VS-I







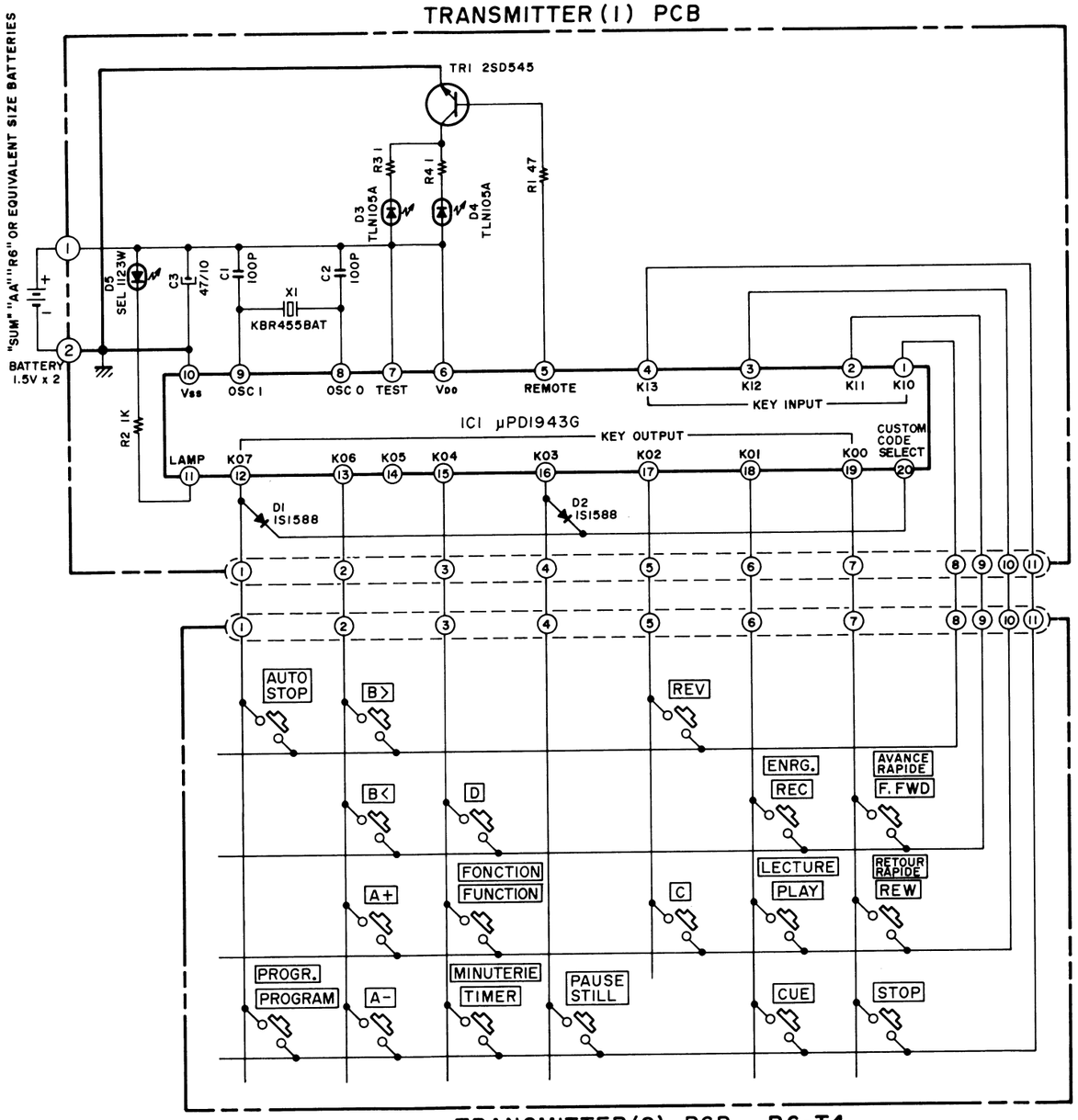
NOTES
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

VS-I EO DEMODULATOR SCHEMATIC DIAGRAM

NO.15-14 830536C

RC-V404

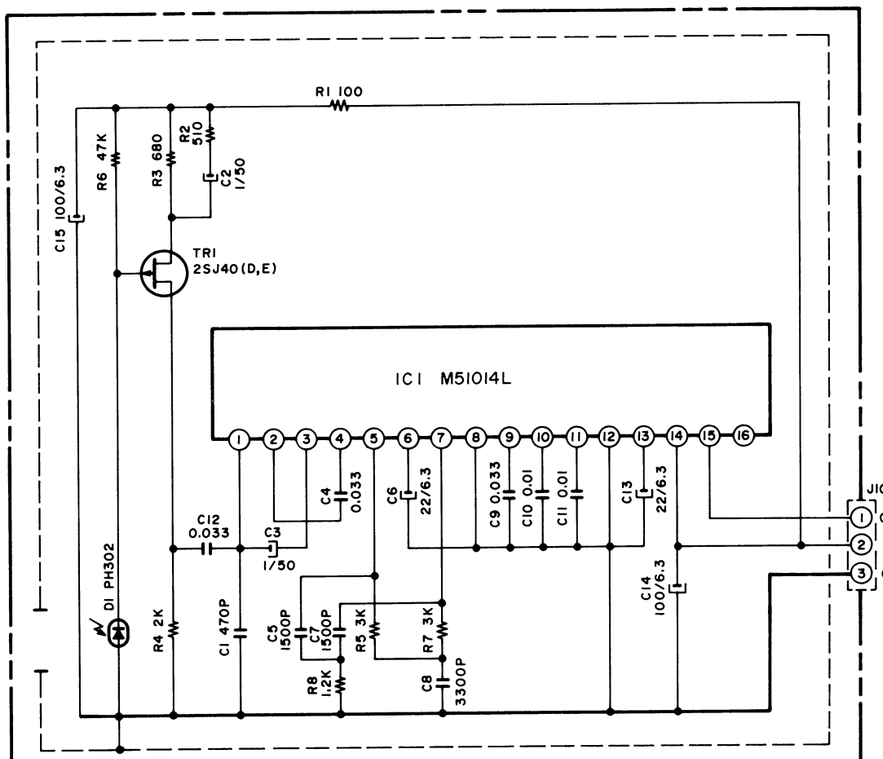
TRANSMITTER (1) PCB



TRANSMITTER (2) PCB RC-T4

CUE : QUICK FINDER (RECHERCHE RAPIDE) ▷▷
REV : QUICK FINDER (RECHERCHE RAPIDE) ◁◁
A+, A- : PRESET SELECT (SELECT S.P.)
PROGRAM SELECT (PROGRAMME SELECT MODIF)
B>, B< : FINE TUNE / TRACKWG (REGL. FIN/AHGNEMENT)
PROGRAM SHIFT (PROGRAMME MODIF)

C : COUNTER RESET (ZERO COMPTEUR)
PROGRAM MEMORIZE (PROGRAMME MEMOIRE)
D : DISPLAY SELECT (AFFICHAGE)
PROGRAM CANCEL (ANNULATION)



RECEIVER PCB RC-R4

2SD545

2SJ40

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

(OPTIONAL ACCESSARY)
RC-V404 (RC-T4/RC-R4)
REMO. CON. UNIT
SCHEMATIC DIAGRAM
NO.15-15 830538C

MEMO

MEMO

SCHEMATIC DIAGRAM VS-1

SCHEMATIC DIAGRAM VS-1